

CO-OPERATIVE ACADEMY OF PROFESSIONAL EDUCATION (CAPE)
1st floor, COBANK Towers, Vikas Bhavan P.O., Trivandrum – 695 033
Tel : 0471-2316236, 2317696

TENDER DOCUMENTS

**Construction of SM Lab at College of Engineering and
Management Punnapra**

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Name of contractor _____

NOTICE INVITING TENDERS

Name of work : **Construction of SM lab at College of Engineering and Management Punnapra**

Estimated Amount : Rs.4,83,860/-

Issue of Tender Documents : From 03.02.2011 to 11.02.2011, to be downloaded From the website www.capekerala.org

Registration Cost : Rs. **900**/- To be submitted along with the tender

E.M.D. : Rs.12,500/- To be submitted along with tender

Last date & time of Submission of tender : 11.02.2011 at 12.00 noon

Date and time of opening of tender : 11.02.2011 at 2.30 pm

Firm Period of tender : 3 months

Period of completion of work : 15 days

- Note :
1. Detailed notice inviting tender deemed as part of Contract and agreement.
 2. Defects if any noticed within the guarantee period from the date of completion will be got rectified by the Contractor at his own cost

I - GENERAL

Name of Work : **Construction of SM lab at College of Engineering and Management Punnapra**

Time of Completion : 15 days

All communications shall be addressed to the Director, CAPE in the following address by post/person

Co-operative Academy of Professional Education
Co-Bank Tower
VIKAS BHAVAN P.O
Thiruvananthapuram-695033
Tel No.0471-2316236
Fax No.0471-2310049

Sd/-

Director

Thiruvananthapuram,
Date:02.02.2011

II- DETAILS OF TENDER

Name of Work: Construction of SM lab at College of Engineering and Management Punnapra

Competitive percentage rate tenders are hereby invited by Co-operative Academy of Professional Education for the above-referred work.

1. The contract documents consisting of Technical specification, Bills of Quantities duly signed on every page by the bidder shall be submitted to the DIRECTOR.
2. The time allowed for the work is 1 month from the date of acceptance of the Work order.
3. The tender shall be accompanied by Registration fee of Rs.900/-and Earnest Money deposit of 2.5% of PAC limited to Rs.12,500/- in the form of Demand Draft taken from SBT in favour of Director, CAPE payable at Thiruvananthapuram. The Registration fee will not be refunded under any circumstance.
4. **Initial Security deposit:** The Earnest Money will be retained as part of the security for the fulfillment of the contract. Security deposit in the form of DD @ 5% of quoted PAC limited to maximum of Rs.50,000/- including EMD shall be submitted at the time of executing the agreement.
5. The Tenderer will submit his tender after carefully examining the whole of the tender documents and the conditions there of.
6. 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 Director

Director
Co-operative Academy of Professional Education

III- FORM OF COVERING LETTER

To

The Director
CAPE
Co-Bank Tower
VIKAS BHAVAN P.O
Thiruvananthapuram-695033
Tel No.0471-2316236

Sub: Construction of SM lab at College of Engineering and Management Punnapra

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. We hereby undertake to complete the work envisaged in accordance with contract conditions within the time specified in the tender.
3. We hereby guarantee the particulars entered into the quotation submitted by us.

.....
Signature of Tenderer

(Name, Title and Position)

Address:

Place:

Date:

I NOTICE INVITING TENDER

Sealed Percentage rate tenders are invited on behalf of Co-operative Academy of Professional Education (CAPE) (THE OWNER) for the **Construction of SM lab at College of Engineering and Management Punnapra**. from eligible Contractors possessing appropriate class registration in CPWD, State PWDs or Government Undertakings or companies for executing this work.

1.01 The general information on the project may be found from the bidding document. The information is only indicative. The tenderers are required to visit the site and familiarize themselves with the site conditions, nature of substrata, 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, nature of substrata, tender conditions or any item of tender. The tender documents will be available from the website of Co-operative Academy of Professional Education www.capekerala.org from 03.02.2011

1.03 Tender documents signed and complete in all respects shall be forwarded so that it reaches the office of the Director, CAPE on or before 12.00hrs on 11.02.2011. Any tender received after the due time and date will be rejected.

The sealed cover containing the Tender shall be accompanied by

1. **Registration Cost as specified**
2. **EMD as specified**
3. **License copy**
4. **Duly signed and stamped Price Bid only, without any conditions.**
5. **Schedule of Quantities with percentage duly filled and amount worked out in figures on each page signed and stamped by the tenderer.**

1.04 The tender will be opened in the presence of tenderers or their authorized representatives who are present at 14.30 hrs on 11.02.2011. THE OWNER reserves the right to reject any bid without assigning any reasons.

1.05.

- .01 After the public opening of the tenders, the information relating to the examination, clarification, evaluation and comparison of tenders and recommendations concerning the award of contract shall not be disclosed to the tenderer and other persons not officially concerned with such process.**
- .02 Subject to THE Owner's right to accept any tender and reject any or all tenders; the work will normally 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, 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 Before commencing the work and within a week after the letter of acceptance of the tender has been intimated to him, 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”.

.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 fresh tenders called for or the matter otherwise disposed off. If, as a result of such measures due to the default of the tenderer to pay the required deposit, execute the agreement or take possession of the work site, any loss to THE OWNER results, the same will be recovered from the tenderer by deducting from any amount due to him from other works or revenue recovery or by suitable course of action including legal proceedings.

1.06 Tenders not properly filled, mutilated with incorrect calculations or generally not complying with the conditions are susceptible to be rejected.

1.07 The rate quoted as percentage rate will deemed to include the cost of all materials, labour, hire charges for all machinery, cost of fuel, power, all leads and lifts, taxes, levies, royalties all overheads contingencies, profits, etc. and the quoted price is all inclusive.

1.08 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 with the co-partnership name by a member of the firm who shall sign his own name and give the name and address of each partner of the firm and attach a copy of ‘Power of Attorney’ with the tender authorizing him to sign on behalf of the other partners. A certified copy of the ‘Registered Partnership Deed’ shall also be submitted along with the tender. If the tender is made by a Registered company, it shall be signed by the Authorized signatory with copy of the power of attorney authorizing him to sign the tender. The tender should be in a sealed cover.

1.09 **EMD**

.01 Earnest Money Deposit is Rs.12,500/-. It shall be drawn in the form of crossed demand draft in favour of Director,CAPE payable at Thiruvananthapuram valid for a minimum of 6 months.

.02 E.M.D. of the unsuccessful tenders will be refunded without any interest on finalization of the contract with the successful Tenderer or on the expiry of the validity period whichever is earlier.

.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.

1.10 **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 in the form of a D.D from SBT payable at Trivandrum in THE OWNER and valid for the entire period of construction within one week of the award of the work, in addition to EMD
- .02 E.M.D. will not be refunded to the contractor after remittance of the security and execution of the agreement.
- .03 The SECURITY DEPOSIT will be refunded to the contractor after expiry of the defects liability period.

1.11 RETENTION AMOUNT

- .01 Retention Money at the rate of 10% of the value of work done for each running bill will be deducted from first and following part bills until such time as the cumulative total of such deductions (herein referred to as the Retention Money) shall amount to 10% of the executed value of the work including security deposit. On expiry of the defects liability period or on payment of the amount of the Final Bill which ever is later, the Engineer-in-charge, shall on demand from the contractor refund to him the security deposit and retention amount provided that the Engineer-in-charge is satisfied that there is no demand outstanding against the Contractor.
- .02 All the deposits of E.M.D., SECURITY DEPOSIT and RETENTION MONEY will not bear any interest whatsoever.
- 1.13 Income-tax at the rate prevailing at the time of payment will be deducted from each running bill and final bill.
- 1.14.01 All statutory payments in connection with the employment of the workmen for this work will be borne by the Contractor.
- .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.

1.15 PERIOD OF VALIDITY

- .01 The tender shall remain valid for acceptance for a period of three months from the date of submission 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.

1.16 INSPECTION OF SITE

Every tenderer is expected to 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, specifications and other tender documents. Any further clarifications in the drawings and documents can be had from THE OWNER at the above-mentioned address.

1.17 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 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.

1.18 ALL INCLUSIVE RATES

The contractor's rate must be firm and include the cost of transportation of material to the site, all taxes such as Sales Tax, Excise and Octroi, etc. 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 additional tax, etc., shall not be entertained in any case whatsoever once the tenders are opened. No incidental charges for dewatering, shoring, etc. will be paid other than the quoted rates for finished items

1.19 INTERPRETING SPECIFICATIONS

- .01 In interpreting the specifications, the following order of decreasing importance shall be followed:
 - a. Specification mentioned in Schedule of Quantities
 - b. Special conditions of contract,
 - c. Unit Rate Specifications and Technical Specifications,
 - 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.

- 1.20 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.

1.21.01 The acceptance of a tender rests with the 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 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.

1.22 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.

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

1.24 **SUB-LETTING**

No part 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 carryout the work or receive payment on behalf of the tenderer.

1.25 **DEFECTS LIABILITY PERIOD**

Any defect developed within 'Defect Liability Period' of Twelve months will have to be rectified by the contractor at his own cost and in case the defects are not rectified by the contractor, OWNER/CONSULTANT or their representative shall get the work done at the risk and cost of the contractor.

1.26 **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.

1.27 **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.

1.28 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.

1.29 The contractor must co-operate and co-ordinate with other contractors involved in other works at the site. The contractor should also note that they shall have to clear the site of vegetation, debris, etc. before the commencement of the work and that no extra payment is permissible on this account.

1.30 **PERIOD OF CONSTRUCTION**

Time is the essence of this contract. The construction period shall be fourteen days. Commencement of the work shall be considered from the 7th day of receipt of letter of acceptance.

1.31 LIQUIDATED DAMAGES

Liquidated Damages will be levied for every week of delay at the rate of 1% of the total contract value upto a maximum of 10% of the total contract value.

1.32 CONTRACTOR'S STORE AND SITE OFFICE

Suitable area in the site of work shall be allowed to the contractor 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 of all debris, etc. at his own expense after completion of work.

1.33 MEASUREMENT AND BILLING

.01 The contractor or his representative shall accompany THE OWNER 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, 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 or their representative.

.02 The contractor shall raise bills once a month or for a minimum payment of 10% of contract amount.

.03 Payments towards all interim bills will be made by THE OWNER within 30 days of presentation by the contractor.

.04 Period of final measurement shall be one months from the time of completion of the project.

1.34 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 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 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 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.

.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 similar items in the contract shall be determined by THE OWNER 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. Tender Excess will not be admissible in such cases.

.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 after execution of the work as mentioned in 1.34.01 above and 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 within one month thereafter, determine, 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.

- 1.35 The contractor shall make his own arrangement for water and electricity required for the work. THE OWNER takes no responsibility for the supply of either electricity or water.
- 1.36 **INSURANCE**
The successful tenderer shall take out Contractor's All Risk (CAR) insurance policy, jointly in the name of THE OWNER and the contractor, and the original policy shall be deposited with THE OWNER.
- 1.37 This Notice Inviting Tender will form part of the tender document and the agreement executed by the successful tenderer.

Place: Thiruvananthapuram

Date: 03.02.2011

DIRECTOR

SUMMARY OF NOTICE INVITING TENDER

| Sl. No | item | Description |
|--------|--------------------------------------------|---------------------------------------------------------------------------------------------|
| 1. | Defects liability period | Twelve months |
| 2. | Period of final measurements and valuation | One month. |
| 3. | Date of commencement of work | 7th day from the date of receipt of letter of acceptance. |
| 4. | Period of completion of work | 1 months |
| 5. | Earnest money deposit | Rs.12,500/- |
| 7. | Security additional deposit | 5% of contract value for each parts subject to a maximum of Rs.50,000/- |
| 8. | Retention money | 10% of each running bill, limited to 10% of total executed value including security deposit |
| 9. | Firm period of tender | Three months from the date of opening of Tender |
| 10. | Escalation | No Escalation |
| 11 | Liquidated damages | 1% per week of delay. Maximum 10% of total Contract value. |

Director

Co-operative Academy of Professional Education

Co-Bank Tower

VIKAS BHAVAN P.O

Thiruvananthapuram-695033

Tel No.0471-2316236

IV. CONDITIONS OF CONTRACT

1. The **Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of Director, Co-operative Academy of Professional Education, Co-Bank Tower, VIKAS BHAVAN P.O Thiruvananthapuram and the CONTRACTOR, together with the documents referred to therein including these 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.
 - 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 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 Manager or any other Engineer of Co-operative Academy of Professional Education who shall supervise and be in-charge of the work on behalf of CAPE.
 - vi) **Accepting Authority** shall mean Director, CAPE
 - vii) **Owner shall mean the Director CAPE, TVM**
 - 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, lightening 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 10% to cover, all overheads and profits.

- x) **Schedules(s)** referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers with the amendments thereto.
- xi) **Department** means Co-operative Academy of Professional Education which invites tenders.
- xii) **District specification** means the specifications followed by the state of Kerala in the area where the work is to be executed.
- xiii) **Tendered value** means the value of the entire work as stipulated in the letter of award.
- xii) Site **Order book** is a book to be maintained by the Contractor and produced when demanded by the Engineer in-charge to record any instruction /comments by the Engineer in-charge)
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.
7. 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.
8. 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.
- 8.1 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) P.W.D Specifications
 - v) Indian Standard specifications of B.I.S.

- 8.2 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.
- 8.3 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.
- 8.4 **Commencement and completion of work-** The work shall commence within 7 days from the date of work order and complete the whole work within 15 days from the start of the work.
9. **Agreement-** The contractor, on acceptance of his tender by the Accepting Authority, shall within 7 days from the stipulated date of start of the work sign the agreement of contract consisting of:-
- a) The tender conditions, all the documents including drawings, if any, forming the part of tender as issued at the time invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - b) Model Rules for the protection of health, sanitary arrangements for workers employed by PWD of its CONTRACTORS.
 - c) PWD CONTRACTOR's Labour Regulations.

MEASUREMENT BOOKS

Conventional measurement book shall be used for recording the measurements. The Engineer-in-charge of **Construction of SM lab at College of Engineering and Management Punnapra**. 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.

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 of **Construction of SM lab at College of Engineering and Management Punnapra**. and recorded and entered in the M.Books by the Engineer- in-charge or his Authorised representative.

The Engineer-in-charge shall incorporate all such 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 Manager 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 ten 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.

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. 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.
4. The CONTRACTOR shall furnish along with the tender his proposed methodology and programme of construction in comprehensive manner of executing and completing the work with in 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.
5. 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.
6. 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.

7. Royalty at the prevalent rates shall have to be paid by the CONTRACTOR on all the metals, shingles, sand, etc., collected by him for the execution of the work direct to the Revenue authority or authorized agent of the State Government concerned.
8. Tenderers are advised to study the drawing before tendering.
9. 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.

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.

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

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 authority for power utilisation.
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.
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, under the building bare floors is strictly prohibited.
13. No vegetation inside the campus should be damaged.
14. Drinking water requirement of the labour should be arranged by the CONTRACTOR and they should be instructed not to misuse the facilities available in the various buildings.
15. While transporting the materials along the road, spillage of material should be avoided. If any spillage occurs the same should be got cleaned immediately.

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. The Principal contractor will be completely be responsible for any technical anomalies or deviations in the work executed.

Special condition for Safety at the Site

1. No workmen below 18 years and above 58 years of age shall be engaged for a job.
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 insured before engaging the person on work.
3. Smoking is strictly prohibited at 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 Manager in writing.
5. No one is allowed to enter into workplace and work at site without adequate foot protection.

6. All excavated pits shall be barricaded & barricading to be maintained till the backfilling is done. Safe approach to be ensured into every excavation.
7. Adequate illumination at workplace shall be ensured before starting the job at night.
8. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.
9. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.
10. Erection zone and dismantling zone shall be barricaded and nobody will be allowed to stand under suspended loads.
11. Contractor should spray water using Water sprayer periodically in the site to reduce the dust rising due to wind.
12. Horseplay is completely prohibited at workplace. Running at the site is completely prohibited, except in the case of emergency.
13. Material shall not be thrown from the height. If required, the area shall be barricaded and one person shall be posted outside the barricading for preventing the tres-passers from entering the area.
14. All electrical connections shall be made using 3 or 4 core cables, having a earth wire.
15. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.
16. All major, minor accidents and near misses to be recorded and reported to the Engineer in charge.
17. Scaffoldings used should be of proper construction. No Casuarinas pole / bamboo scaffolding is permitted. It should be inspected by competent person(s) before use
18. 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.
19. 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.
20. Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work everyday.
21. All the unsafe conditions, unsafe acts identified by CONTRACTOR, reported by site supervisors and / or safety personnel to be corrected on priority basis.
22. No children shall be allowed to enter the workplace.
23. All the lifting tools and tackles shall be stored properly when not in use.
24. Clamps shall be used on Return cables to ensure proper earthing for welding works.

25. Proper warning boards and caution notices to be displayed at required areas inside the site.

Third Party Insurance

Before commencing the execution of the Works, the CONTRACTOR shall insure against the liability for any material or physical damage, loss or injury which may occur to any property or life including that of the CAPE. or to any person, including any employee of the CAPE. by or arising out of the execution of the works or in the carrying out of the Contract. Original policies should be submitted to THE OWNER for perusal.

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, the 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 work 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. The CONTRACTOR shall not make any claim for compensation or damage in relation thereto.

Penalty for Delay

If the CONTRACTOR fails to complete the work and clear the Site on or before the specified period of completion, he shall, without prejudice to any other right or remedy of THE OWNER on account of such breach, pay as agreed compensation an amount calculated as "Penalty for Delay" for the period during which the said works shall remain incomplete beyond the specified date of completion and THE OWNER. may deduct such damages from any money due to the CONTRACTOR.

The Penalty for delay shall be deducted from the CONTRACTOR at a rate of 1% of contract value per week subject to a maximum of 10% of the contract sum from the specified date of completion.

Defect Liability Period

The defect liability period shall be 12 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.

Security Deposit and Retention Money

The person/persons, whose tenders may be accepted (hereinafter called the CONTRACTOR), shall permit THE OWNER to deduct, in addition to the money held by THE OWNER, as Initial Security Deposit, Retention Money, from each payment made to the CONTRACTOR. The Retention Money will be deducted at the rate of 10 % of each interim bill of the CONTRACTOR subject to a maximum of 10% of the total contract amount including security.

The Retention Money deducted from each interim bills of the CONTRACTOR in the manner specified above, shall continue to be retained with THE OWNER, for due fulfillment of the work, and 50% will be refundable after the virtual completion of the work as specified herein. No interest shall be payable to the CONTRACTOR on EMD and / or retention money retained with THE OWNER.

Upon the virtual completion of the entire works the CONTRACTOR would be paid by the Owner. 50% of retention money on virtual completion of work and balance 50% will be retained with THE OWNER, for a period of 12 months (termed as defects liability period). No interest shall be paid to the CONTRACTOR on account of this withheld money. This amount would be returned (less deductions if any) to the CONTRACTOR thereafter, on satisfactory expiry of defect liability period. In the event any defects occur during this period, they shall be dealt with as per conditions of contract and shall be duly recovered from Retention money and / or compensation paid to THE OWNER.

Arbitration

Arbitration shall not be the means of settling of disputes. All disputes unless settled by mutual negotiation will be referred to the civil court with jurisdiction at Trivandrum.

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 at site accounts 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.
- 3.2. 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 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.
8. 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. Nothing extra shall be paid on this account.
9. 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 KPWD 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 sound 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.
- 1.1.4. 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.
- 1.1.5. 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.
- 1.1.6. Equivalents 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.
- 1.1.7. 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. Project 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. 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, without any extra payment.

2.2. R.C.C.Work (Nominal mix concrete)- Water-Cement Ratio: - For RCC Works, wherever.

- 2.3. All above materials like stone aggregates, coarse sand, fine sand, Bricks, Surkhi, Stone etc. conforming to the KPWD 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 KPWD specifications and duly approved of Engineer-in-charge, involving extra lead etc. nothing extra shall be paid on this account.

2.4 Measurement:- As per KPWD specifications. For Earth filling, immediately after awarding the work, Pre-measurements (initial levels) should be taken jointly by the Contractor and the Engineer and got approved by the OWNER before starting actual filling

- 1.1.1. **Rate:-** The rate includes the cost of materials and labour involved in all the operations described above including the cost of centring, shuttering.

DIRECTOR

SCHEDULE OF QUANTITIES

FORM OF TENDER

Name of work : **Construction of SM lab at College of Engineering and Management Punnapra**

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

Construction of S.M lab for Civil Engineering Department at CEM Punnapra

| Sl.No. | Description of work | Quantity | Unit | Rate | Amount |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|------|--------|
| 1 | Dismantling , Clearing away and carefully staking materials useful for reuse for any thickness of wall of brick,laterite or rubble in cement mortar including disposal of debris with in a distance of 150 m | 10 | Cum | 422 | 4220 |
| 2 | Brick masonry in CM 1:5 using country burnt bricks of 19cm x 9cmx9 cm or nearest size for any thickness of walls including all cost and conveyance of materials ,labour charges etc. complete | 18 | Cum | 3466 | 62388 |
| 3 | Reinforcement cement concrete 1:2:4 using 20 mm size hard granite broken stone for fountation including all form work, watering etc, complete. | 0.25 | Cum | 5667 | 1417 |
| 4 | Flooring with C.C 1:5:10 & plastered with C.M 1:3 , 15 mm thick floated hard and trowelled smooth including all cost conveyance curing charges etc. complete. | 221 | 10 sqm | 4462 | 98610 |
| 5 | Plastering with CM 1:5 , 12 mm thick for inside walls including all cost of labour, conveyance etc. complete | 70 | 10 sqm | 1387 | 9709 |
| 6 | Providing anchor bolts for machines as per the directions of departmental officers at site.nos. | 104 | nos | 44 | 4576 |
| 7 | Supplying and fixing rolling shutters of approved make and painted with a priming coat of iron primer, made of 80x1.25 mm M.S laths interlocked together through their entire length and joined together at the end by the end locks mounted on specially, designed pipe shaft, with | 525 | 10dm2 | 183 | 9608 |

| | | | | | |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|--------|
| | brackets, side guides and arrangements for inside and outside locking with push and pull operation etc. complete. | | | | |
| 8 | Supplying and fixing top cover for rolling shutter including cost of fittings labour etc.complete. | 3.1 | m | 495 | 1535 |
| 9 | Providing and fixing suspended false ceiling using GI perimeter channel of size 0.5 mm thick having I flange of 20mm along with perimeter of ceiling screw fix to brick wall/partition with the help of nylon sleeves and screws, at 610 mm centers, GI intermediate channels of size 45 mm, 0.9mm thick with two flanges of 15mm each from the soffit at 1220 mm centers with ceiling angles of width of 25mm x 10mm x 0.5 mm thick fixed to soffit with GI fleet and steel expansion fastners. 12.5 mm tapered edge gypboard (conforming to IS 2095 - 1982) is then screw fix to ceiling section with 25mm drywall screws at 230mm centers , including provisions for light fixtures, taping etc. complete. | 522 | Sqm | 559 | 291798 |
| | Total | | | | 483860 |