# PUBLIC WORKS DEPARTMENT BUILDINGS ( C & M ) DIVISION, TIRUVANNAMALAI-3

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# **TENDER SCHEDULE**

## **NAME OF WORK :**

# CONSTRUCTION OF VETERINARY DISPENSARY BUILDING AT THANIPADI IN TIRUVANNAMALAI DISTRICT.

# முக்கிய அறிவிப்பு

முன் வைப்புத் தொகையை தேசீய சேமிப்பு பத்திரங்களாகத் தருவதால் இருந்தால் ஒப்பந்தப்புள்ளி அறிவிப்பில் தெரிவித்தபடி குறிப்பிடப்பட்டுள்ள செயற் பொறியாளர் பெயருக்கு உரிமை மாற்றம் செய்த பின்னரே ஒப்பந்தப்புள்ளியுடன் இணைக்க வேண்டும். உரிமை மாற்றம் செய்வதற்கான விண்னப்பத்தில் கையொப்பமிட்டால் மட்டும் போதாது. தவறினால் கண்டிப்பாக ஒப்பந்தப்புள்ளி கணக்கில் எடுத்துக் கொள்ளப்பட மாட்டாது. உடனடியாக தள்ளுபடி செய்யப்படும்.

#### பணியின் பெயர்

திருவண்ணாமலை மாவட்டம், **தானிப்பாடி கால்நடை மருந்தக** கட்டடம் கட்டுதல் பணி

#### TENDER SCHEDULE

#### ISSUED TO / DOWNLOADED BY

M/s. Thiru.

92 Pages and with 76 Items including Plan.

Executive Engineer, PWD., Buildings ( C & M ) Division, Tiruvannamalai.

## TENDER SCHEDULE FOR L.S. CONTRACT GOVERNMENT OF TAMIL NADU P.W.D. OFFICE OF THE EXECUTIVE ENGINEER, P.W.D., BUILDINGS ( CONSTRUCTION & MAINTENANCE ) DIVISION, TIRUVANNAMALAI - 606 603.

Name of Work	:	Construction of Veterinary Dispensary building at <b>Thanipadi</b> in Tiruvannamalai District
Last Date for Receipt of Tender	:	13 – 05 – 2022. Upto 15.00 Hrs.
Date and Time for opening	:	13 - 05 - 2022. 15.30 Hrs.
E.M.D. to be remitted	:	Rs.32,200 /-
Nature of E.M.D. to be remitted	:	Demand Draft of the Nationalised and schedule Bank drawn in the name of the Executive Engineer concerned and NATIONAL SMALL SAVINGS SCREPS AND DEPOSITS ACCOUNTS OF POSTAL DEPARTMENT pledged in the name of the Executive Engineers concerned or Indira Vikas Pattram. No other mode of payment will be accepted.

Date :-

- 1. The Tender and the E.M.D. should be submitted in a common sealed cover.
- 2. Tenders not submitted in sealed covers will be summarily rejected.
- 3. (a) The rate in words and figures for each item of schedule should invariably furnished by the Tenderer without fail in appropriate columns. corrections, overwritings ( should be avoided so for as possible) should be attested by the Tenderer. The rate shall inclusive of all duties taxes, royalties and other levies, except goods and service tax (GST) payable by the contractor under the contract of for any other cause shall be included in the rates submitted by the tenderer.
  - (b) The Total value of each items of work should be worked out and entered in the amount column excluding GST. Proper care must be taken in working out the value of each item of work taking into account the unit for which the rate is quoted and the quantity of work to be done under the item.
  - (c) The total of each page should be noted at the end of each page and carried over to next page. The grand total value of the tender should be worked out and furnished at the end, both in words and figures excluding GST.

#### PARTICULARS TO BE FURNISHED BY THE TENDERER

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- 1. Name of the Tenderer and Address
- 2. Name of Work
- 3. Date of Tender
- 4. Details about EMD enclosed for this Tender and : its validity
- 5. Registered class of the tenderer with monetary : limit and department in which registered, Certified copy of the registration should be attached. Registration Live Certificate should be produced for the current year.
- 6. Recent works executed (Details about name and : place of work value of work etc., should be furnished)
- Works under execution (Details about name and : place of work value of the work etc., should be furnished)
- 8. Command of Labour in brief
- 9. Turnover previous years (particulars for a : period of three consecutive years to be furnished)
- 10. Whether income tax clearance certificate (Saral : form) is enclosed, if not when it was produced? (the particulars regarding the previous occasion on which this certificate was produced may be furnished)
- 11. i. Sales Tax Registration No / GST Registration No.
  - ii. Whether Sales Tax clearance certificate is enclosed? if no, when it will be produced?

- 12. In case of Registered Cooperative societies they : should furnish name of the nominee with their credential details at the time of tender itself. They should also certify that the nominee of the Society is not registered contractor in the department
- 13. Technical Assistants details:
  - a: Name

Qualification certificate Experience certificate.

b. Name

Qualification certificate Experience certificate

(OR) c. If registered Civil Engineer

- designation
- 14. List of Various machinery and other : equipment at the tenderer disposal for use in the execution of work
- 15. Any other details
- Note : The consent letter from the Technical Assistant proposed to be employer should be obtained and enclosed with tender.

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#### **DECLARATION TO BE FURNISHED BY UNEMPLOYED ENGINEER**

1.	Name	:
2.	Address	:
3.	Age	:
4.	Native Place	:
5.	Qualification	:
6.	Year of Passing	:
7.	No. of years employed	:
8.	Name of the Division in which registered as on unemployed Engineer	:
9.	Date of Registration	:
10.	Class of Contract	:
	a) Money Limit	:

11. Previous experience in your

a. Irrigation b. Head of Work c. Buildings d. Bridges e. Other

12. Details with regard to Name of Work, Nature of work etc., may be furnished in a separate sheet.

:

Contractors	Name of Work	Value of Work	Period of Contract	Nomination of / Tender

13. Annual turn over for the last three years:14. Solvency immovable / Cash:15. Tools and plant owned:16. Was there any default in fulfilling terms of<br/>contract and resultant panel action:17. Special remarks if any:

Station :

Date :

# SIGNATURE AND NAME OF THE UNEMPLOYER ENGINEER

#### ADDITIONAL GENERAL CONDITIONS (I.E) ADDITIONS TO GOVERNMENT CONDITIONS TO CONTRACT APPENDED WITH NBP

#### **POSTAL TENDERS:-**

- 1. The contractors may have the option to present the tender directly or to send it by registered post acknowledgement due on or before the last date for receipt of tenders.
- 2. In case of sending tenders by registered post acknowledgement due it is the responsibility of the tenderer himself to despatch the tender sufficiently early so as to reach the tender opening authority before the date and time notified in the tender notice for opening of tenders.
- 3. No representation/appeal of any kind will be allowed against belated receipt of tenders by post beyond the notified date and time or loss in transit etc.,

#### E.M.D.

1. The acceptance of EMD in various approved forms duly pledged in favour of the Executive Engineer concerned is subject to the specific condition that the successful tenderer should pay the security deposit including EMD in the form of small savings scrips / Deposits /Accounts in lieu of other mode of payment made for EMD. If offering Indira Vikas patras, the contractor should furnish his name in the back side of the said patras and to furnish a letter starting that he is submitting the Indira Vikas Patras indicating this registration No. EMD./SD. to the officer accepting the tender. The purchase value of such Indira Vikas Patras will only be taken for account.

#### 3. SECURITY DEPOSIT

In case of contracts for buildings works the security deposit (i.e) 2% of the value of contract minus the E.M.D. already remitted should be produced including GST.

The Security Deposit collected from the contractors can be paid to the contractor asking them to invest the amount so paid in small savings scrips and to hand over them to the Executive Engineer concerned by pledging them in his favour, subject to the condition that unless the contractor remit the security deposits in small savings scripts (which will be returned after observing rules inforce,) their further all to the work carried out by them will not be paid.

3.3 Additional Security Deposit will have to be paid by Successful tenderer if called for inclusive of GST.

#### **GOODS & SERVICE TAX**

- 1. All rates quoted in the shall inclusive of all duties, taxes, royalties, fees, tolls, insurance, other levies if any except Goods and Service Tax (GST) payable by the contractor under the contract or for any other cause shall be included in the rates submitted by the tenderer.
- 2. The Government of India has notified vide notification No.20/2017 and notification no.24/2017 the consessional rate of GST at 12% (CGST 6% + SGST 6%) is leviable for any Government Contract wheather Civil or Electrical irrespective of the GST rate applicable on purchase of goods used in the execution of Government contract works. The GST amount will be calculated at 12% of sum of tender value (excluding GST) entered by the tenderer for the construction cost specified in BOQ subject to GST rate applicable as amended from time to time.
- 3. As per notification 202 section 7 sub section 2 of the Tamilnadu Goods and Services act 2017 (Tamilnadu act 19/2017) activities or transaction under taken by State Government shall be treated neither as supply of goods nor supply of services.
- 4. As per Public Works Department Schedule of Rates under general note 8(ix), the contractor is eligible to get refund of excess tax paid or liable to pay tax for this contract.
- 5. As per chatpter IX (Section 41) of Tamil nadu Goods and Services act 2017 every registered person may be entitled to the credit of eligible input tax, as self assessed, in his return and such amount shall be credited on provisional basis to his electronic credit ledger and the contractor need to pay the GST amount towards his GST Registration No.
- 6. The TDS at the rate of one percent for SGST and another one percent for CGST shell be deducted in each bill.

#### WITHELD AMOUNT

The with held amount at 5% be recovered from each bill based on the value of work done

Claims of Contractors on account of losses due to unprecedented floods and other act of God.

The work executed by the Contractor under these contract shall be maintained at the contractor's risk until the work is taken over the Executive Engineer. The government shall not be liable to pay for, any loss or damages occasioned by or arising out of fire, flood, volcanic eruption, earth quake, other convulsions of nature and all other natural calamities, risk arising of acts of God during such period and that the option whether to take assurance coverage or not to cover such risks is left to the contractor.

#### STANDARD SPECIFICATIONS.

For detailed description of various items of works to be executed in addition to the brief description given in the schedule for the rights and obligations of the contractors, etc/ the attention of the contractors, is invited to Tamil Nadu Buildings Practice which should be followed in all respect both in letter sprit. The materials used, the workmanship, the mode of execution of the work etc., should confirm to relevant specification of TNBP or NBC (or) Indian standard specification as to be specified.

#### SAFETY CODE

The safety measures and all amenities for the labours shall be the contractor at his cost as indicated in the safety code appendix to General conditions of contractor and clause 34, 35 and 42.1 of General conditions to contract.

#### **TENDER NOTICE**

- On behalf of the Governor of Tamil Nadu Tenders will be received by the Executive Engineer, PWD., Buildings (C&M) Division, Tiruvannamalai in his office of at PWD, Campus, Chengam Road, Tiruvannamalai upto 3.00 P.M. on <u>13.05.2022</u>
- 1.1. The Tenders should be in prescribed from obtainable from the Executive Engineer's office. The Tenders will be opened by the Executive Engineer, PWD., Buildings (C&M) Division, Tiruvannamalai-3. and at the place and on the date afore mentioned.
- 1.2. The Tenderers or their authorised agents are expected to be present at the time of opening of tenders. The tender receiving officer will on opening each tender, prepare a statement of the attested and unattested corrections therein and hand it over to the tenderer concerned and initial all corrections in the presence of the tenderers. If any of the tenderers or their agents find it inconvenient to be present at the time then in such case, the tender receiving officer will, on opening the tender of the absentee tenderer, make out a statement of the unattested corrections and communicate it to him. The absentee tenderer shall then accept the statement of the corrections without any question whatsoever.
- Tenderes must be submitted in sealed covers and should be addressed to the Executive Engineer, PWD., Buildings (C&M) Division, Tiruvannamalai-3, the name and address of tenderer and the name of the work being noted on the cover.
- 2.1. If the Tender is made by an individual, it shall be signed with his full name and his address shall be given. If it is made by a firm, it shall be signed with the Co-partnership name by a member of the firm who shall also sign his own name, and the name and address of each member of the firm shall be given, if the tender is made by a corporation, it shall be signed by a duly authorized officer who shall produce with this tender satisfactory evidence of this authorization. such tendering corporation may be required before the contract is executed to furnish evidence of its corporate existence.
- 3. Each tender must also send a certificate of Income Tax verification (Saral form) from the appropriate income tax authority in the form prescribed therefor. The certificate will be valid for the year from the date of issue for all tenders submitted during the period.
- 3.1. In the case of propriety or partnership firm, it will be necessary to produce the certificate aforementioned for the proprietors or partner and for each if the partners as the case may be.
- 3.2. If the tenderer is a registered Public Works Department contractor, if a certificate for the current year had already been produced by him during the calender year in which the tender is made, it will be sufficient. If particulars regarding the previous occasions on which the said certificate was produced are given.

- 3.3 All Tenders received without a certificate, as aforementioned will be summarily rejected.
- 4. Each tenderer must pay as Earnest Money, a sum of Rs.32,200/- (Rupees Thirty Two Thousand and Two Hundred only) in the prescribed form and pledged in favour of the Executive Engineer Concerned to the credit of Revenue Deposits on behalf of the Executive Engineer , PWD., Buildings (C&M) Division, Tiruvannamalai, enclose with his tender accordingly. The Earnest Money deposit it can also be paid in any other form as may be approved by the state Government from time to time as per para 155 or TNPWD code. This Earnest Money will be refunded to the unsuccessful tenderer on application, after intimation is sent of rejection of the tender or at the expiration of three months from the date of tender which ever is earlier. This refund will be authorised by the Executive Engineer by suitable endorsement. The Earnest Money will not be received cash or currency notes.
- 4.1 Earnest Money will be retained in these case of the successful tenderer and will not carry any interest, it will be dealt with as provided in the tender.
- 5. The tender will remain valid for a period Three calendar month from the last date for receipt of tender. The validity period can be extended further, if the contractor gives his consent in writing specifying the period of extension.
- 5.1. The tenderer whose tender is under consideration shall attend the Executive Engineer's Officer Before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the specified period, his tender will not be considered. He shall forthwith, upon and intimation being given to him of acceptance of his tender, by the officer duly authorized in his behalf under Article 290(1) of the constitution herein after called the accepting authority make security deposit of 2% of the value of contract including GST in one of the forms prescribed in Tamil Nadu Public Works Account Code (i.e) by taking in account of the amount of Earnest Money Deposit already deposited with the tender. It would be sufficient to pay the balance amount to make up the 2% of the value of the contract including GST for the purpose of security deposit.
- 5.2. The Security Deposit together with Earnest Money Deposit and the amount with held according to clause 64-1 of General condition to contract, shall be retained as Security for due fulfillment of contract.
- 5.3. On receipt of written communication of acceptance of tender if the tenderer fails to pay requisites Security Deposit with in the period specified in the written communication or back out from the tender or withdrawal his tender, the Earnest Money Deposit shall be forfeited to the Government.
- 5.4. If the contractor fails to carryout the contract, after paying the Security Deposit, then he will be liable for the excess expenditure if any incurred to complete the work as contemplated in the General Conditions to the contract.

#### CONTRACTOR

- 5.5. It shall be expressly understood by the Tenderer that in receipt of written communication of acceptance of tender by the Tenderer, there emerges a valid contract between the Government of Tamil Nadu and the Tenderer, for execution of the work without any separate written agreement. Hence for this purpose, the General conditions to the contract, special conditions to the contract, Negotiation correspondences, written communications acceptance of tender etc., shall be open to the accepting authority to insist of execution of any written agreement by the tenderer, if Administratively considered necessary or expedient.
- 6. The Tender shall examine early the Tamil Nadu Building practice and also the General conditions to contract contained therein and sign the divisional office copy of the Tamil Nadu Building practice and its addenda volume in token of such study before submitting his Tender unit rates, which shall be for finished work in site. He shall also carefully study the drawing and additional specifications and all the documents connected with the contract. The Tamil Nadu Buildings practice and other connected documents with the contract such as specification, plans, descriptive specification sheet regarding materials etc., can be seen at any time between 11.00 AM and 5.00 PM on all office day in the office of the Executive Engineer.
- 7. The Tenderers attention is directed to the requirements for materials under the clause "Materials and Workmanship" in the General Conditions to the contract, materials confirming to the ISI standards shall be used on the work and the tenderer shall quote his rates accordingly.
- 8. Every tenderer is expected before quoting his rates, to inspect the site of the proposed work. He should also inspect the quarries and satisfy himself about the quality and availability of materials. The names of quarries and kilns etc. The best class of materials to be used on the work. In every case the materials must comply with the relevant standard specifications. Sample of materials as called for in the standard specification or as required by the Executive Engineer in any case shall be submitted for the Executive Engineer approval, before the supply to site of work is begun. If the contractor after examination of the source of materials defined in the descriptive, specification sheet is of the opinion that materials complying with the standard or other specifications of the contract cannot be obtained in quality of sufficient quantity from the source defined in the descriptive specification sheet, he shall so state in his tender and state where from he indents, to obtain materials, subject to the approval of the Executive Engineer.

- 9.1 (a) The tenderers particular attention is drawn to the section and clause in the General conditions to the contract dealings with:
- 9.1(b) 1. Test, inspection and rejection of defective materials and work
  - 2. Carriage
  - 3. Construction plant
  - 4. Water and lighting
  - 5. Cleaning up during progress and for delivery
  - 6. Accidents
  - 7. Delays
  - 8. Particulars of payment
  - 9. The Contractor should closely peruse all the specifications clauses which govern the rates which he is tendering.
- 9.1 (c) The Government will not, however, after acceptance of contract, rate, pay any extra charges for lead or for any other reasons in case of contractor is found later on to have misjudgment the materials available. Attention of contract or is directed to the "Generals Condition to the Contract" regarding payments of seigniorage, tolls etc.,
- 10. A schedule of quantities accompanies this tender notice. It should be definitely understood that the Government does not accept any responsibility for the correctness of completeness of this schedule and that this schedule is liable to alterations by omissions deductions or additions at the discretion of the Executive Engineer, PWD., Buildings (C&M) Division, Tiruvannamalai or as set forth in the conditions of Contract. The tenderer will, however, base his lumpsum tender on this schedule of quantities. He should quote specific rates for each item on the schedule and the rate should be written both in words and figures and the units in words inclusive of all duties, taxes, royalties, fees, tolls, insurance, other levies if any except Goods and Service Tax (GST) payable by the contractor under the contract or for any other cause shall be included in the rates submitted by the tenderer

The rates and prices tendered in the priced BOQ shall except in so for as it is otherwise provided under the contract include all constructional plant, labour, supervision, materials, errection, insurance profit, taxes and duties (except GST), together with all general risk, liabilities and obligations set out in the contract.

- 10.1 The tenderer should also show the totals of each item and the grant total of the whole contract and quote in the tender a lumpsum for which he will undertake to do the whole work excluding GST subject to the conditions of contract such lumpsum agreeing with the total amount of schedule accompanying. The total tender price will be the cumulative value quoted for construction (total basic price + SGST, CGST, IGST and all central duties such as customs duty)
- 10.2 In the event of work being transferred to any other Circle / Division /Sub-Divisions, the Superintending Engineer/ Executive Engineer /Asst.Executive Engineer who is incharge of Circle / Division /Sub-Division having jurisdiction over the work shall be competent to exercise all the powers and privilege reserved in favour of Government
- 11. Tenderers offering a percentage deduction from or increase on the estimate amount, called for specifically under percentage tender system and those not submitted in proper form or in due time will be rejected.
- 12. The tender should work out his own rates without reference being made to the Public Works Department current schedule of rates or the Public works Department Estimate. However, in case tender called for in percentage tender system the tender should work out his own rate, but quote his percentage above or below the total estimated cost of work of the department indicated in the tenders schedule.
- 13. Tenderers shall quote their price excluding GST for finished work accordingly . Not with standing any subsequent change in the market value for these materials, the change to the contractor remain as originally in the written contract. No centage or incidental charges will be born by Government .
- 14. The attention of the tenderers is directed to the contract requirements as to the time of beginning work, the rates of progress and the dates for the completion of the whole work and its several parts. The following rate of progress and proportionate value of work done from time to time as will be indicated by the Executive Engineer's certificate of the value of work done will be required. Date of commencement of this programme will be date on which the site (or premises ) is handed over to the contractor.

Period a	after date of Commencement	Percentage of work Completed (Based on Contract lumpsum amount)
Ist	Month	20 %
IInd	Month	40 %
IIIrd	Month	60 %
IVth	Month	80 %
Vth	Month	100 %

- Note : The periods to be entered in column I for the purpose of defining the rate of progress may be fixed by the Executive Engineer to suit each case.
- 15. No part of the contact shall be sub-let without written permission of the Executive Engineer, nor shall transfer be made by power of attorney, authorising others to received payment on the contractors behalf.
- 16. If further necessary information is required the Executive Engineer of the Division will furnish such but it must be clearly understand that tenders must be received in order and according to instruction
- 17. The Superintending Engineer / Executive Engineer or other sanctioning authority reserves the right to reject any tender or all the tenders without assigning any reason therefore.
- 18. The tenderers who are themselves not professionally qualified shall undertake to employ qualified Technical men at their cost to look after the work. The tenderer should state in clear terms whether they are professionally qualified or whether they undertake to employ technical men required by the Department specified in the schedule below for the work. In case the selected tenderer is professionally qualified or has undertaken to employ technical men under him he should see that one of the Technically qualified men is always at the site of the work during working hours, personally checking all items of work and paying extra attention to such works as may demand special attention (or) reinforced concrete work etc.,

(In the format below: enter or incorporate the latest norms fixed by the Government for the employment of Technical Assistants from time to time and penalty for non employment of such Technical Assistant etc.,)

Value of Contract	Qualifications and No. of Technical Assistants to be employed
Rs.44.40 Lakhs	B.E. Civil Passed – 1 No.
	D.C.E. Passed – 2 Nos.

#### Note:

- A penalty of Rs.2,000/- per month, for Diploma holder and Rs.5000/- per month for degree holder, be levied in case of default on the part of the Contractor in following the norms laid down above.
- 2. The Employment of Technical Assistant could be based only on the value of contract
- 3. Engineers with Mechanical Engineering qualification and retired from Civil Engineering department are also suitable to supervise the Civil Engineering works because of their experience in Civil Engineering field.
- 4. In case of contractor who is professionally qualified is not in a position to remain always at the site of work and to pay extra attention to such work as may demand special attention (e.g. RCC work etc., ) he should employ Technically qualified man as prescribed above
- 5. It will not be in cumbent on the part on the contractor to employ Technical Assistant/ Asst. when the work is kept in a balance due to valid reasons and if during such period in the opinion of the Executive Engineer, the Employment of Technical Assistant/ Assistants is not required for the due fulfillment of the contract

- 20. A tenderer submitting a quotation which the tender accepting authority consider excessive and/or indicating of the insufficient knowledge of current prices or definite attempt to profiteering will render himself liable to debarred permanently from tendering or for such period as the tender accepting authority may decide. The tender rates should be based on the controlled price purchaser, under the provision of clause 39 hearing the profiteering prevention ordinance 1843 as amended from time to time and on similar principles in regard to labour and supervision in the construction.
- 21. The contractor should after employment to ex-today tapper as for as possible. The number of extoday tappers to whom he can so after employment should mentioned in the tender and he should under take in the agreement to officer such employment to such number
- 22. The contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and orders issue there under from time to time. If he fails to do so, his failure will be a breach of the contract and the competent authority, may at his description, cancel the contract or invoke any of the penalties for the breach of contract provided in the conditions of agreement. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the Act, contractor shall, during the currency of the contract ensure engagement of the apprentices in the categories mentioned below who may be assigned to him by the Director of Employment and Training / State apprenticeship adviser, Tamil Nadu The contractor shall train them as required under the apprentice Act 1961 for all obligations of the employer under the said Act including the liability to make payment to the apprentices as required under the said Act.

Value of Contract	Category	No. to be appointed
Rs.1 Lakh and upto	1. Buildings Constructor	1
Rs.3.00 Lakhs	2. Brick layer	1
Rs.above 3.00 lakhs and	1. Buildings Constructor	1
Upto 10.00 lakhs	2. Brick layer	1
-	3. Diploma holder in Civil Engineering	1
Rs. above 10.00 lakhs	1. Buildings Constructor	1
	2. Brick layer	1
	3. B.E. (Civil) or equivalent Degree holder	1

"Unless the Contractor has been exempted from engagement of apprentices by the Director of Employment and Training/ State Apprenticeship advisor, a certificate to the effect that" the contractor had discharged is obligation under the said Act, satisfactorily should be obtained from the Director of Employment and training / State Apprenticeship Adviser and the same should be produced by the Contractor for final payment in the Settlement of Contract.

23. In case of Contract for construction of buildings either permanent or semi permanent buildings, a sum equivalent to 2 <sup>1</sup>/<sub>2</sub>" of the value of work done will be retained with the Government for a period one year reckoned from the date of completion of the work in order to enable to Departmental Officers to watch the effect of all seasons on the work by the contractor. The amount so retained with the Government for a period of one year reckoned from the date of completion of the work in order to enable to Departmental Officers to watch the Government for a period of one year reckoned from the date of completion of the work in order to enable to Departmental Officers to watch the effect of all seasons on the work by the Contractor. The amount so retained with the Government for a period of one year reckoned from the date of completion of the work in order to enable to Departmental Officers to watch the effect of all seasons on the work by the Contractor. The amount so retained with the Government will be refunded only on the expiry of one year period referred to above and on execution of Indemnity bond by the contractor for four years shall be liable to set right all defects arising out his faulty execution or substandard work notice during the above five years period at his cost.

The Contractor shell not employ the child labourers/ Labourers below age of 12 years and shell also note that they must offer employment to Ex-Servicemen, Ex-today tappers and employ agriculture labourers as for as possible.

The work contract assigned to the Contractor's shell be cancelled, If they engage child labourers in executing works and such contractor should be black listed for three years.

#### Dated

#### То

His Excellency of the Governor of Tamil Nadu

By the Executive Engineer of Buildings (Construction and Maintenance) Division, Tiruvannamalai Sir,

I/We do hereby tender and if this tender be accepted under take to execute the following works viz., as shown in the drawings and described in the specification prescribed in the office of Executive Engineer, PWD., Buildings (C&M) Division, Tiruvannamalai. with such variation by way of alternations or additions to had omission from the said works and method of payment as are provided for in the Conditions of contractor for the sum of Rupees. (Rupees

only)or such other sums as may be arrived at under the clause of the General conditions to the contractor relating to payment on lumpsum basis or by fine measurements at unit prices.

2. I /We have also completed the priced list of items in schedule 'A' annexured (in words and figures) for which I /We agree to execute the work and receive payment on measured quantities as per the General conditions to the contract.

3. I /We do hereby distinctly and expressly declare and acknowledge that before the submission of my or our tender I /We have carefully followed the instruction in the tender notice and have read the Tamil Nadu Buildings practice addenda volume and general condition of the contract and that I / We have made such examination of the contract document and of the plans specifications quantities and of the location, where the said work to be done, and such investigation of work required to be done and in regard to the materials required to be furnished as to enable me us/to their understand the intention of same and the requirement covenants, stipulations and restriction contained in the contract and in the said plane and specifications, and distinctly agree that I /We will not thereafter make any claim or demand up to the Government based upon or arising out of any alleged misunderstandings or misconception or mistake on by /our part of the said requirements convents, stipulations and conditions.

4. I /We enclose an Income Tax verification certificate I/We being registered Public Works Department Contractor.

I / We have already produced an Income Tax verification Certificate during the current calender year in respect of ( here particulars of the previous occasions on which the certificate was produced should be given. The legal address of the Contractor for service of all letters and notices will be as follows;

4.	(i) I/We enclose herewith a chalan	for the payment as Earnest Money not	to hear interest.	
5.	(i) (b) I/We have paid Rs.	(Rupees		
		only) as	and eligible to	pay the EMD at
confe	ssional rates Against at EMD of Rs.	(Rupees		
			only)	
5.	(i) (c) In lieu of cash deposits I / We	e have enclosed a	bearing	No.
	Dated issued	1	for a value of Rs.	
(Rupe	ees		С	only)
Draw	n/endorsed/ pledged in favour of th	e Executive Engineer,P	WD., Buildings	Division.

5. (i)(d) I am / We are on

and hence excepted from payment of EMD

- 6. If my/ out tender is not accepted this sum shall be returned to me /us on my / our applications when intimation is sent to me / us of rejection or at the expiration of three months from the date of this tender, whichever is earlier. If my / our tender is accepted the Earnest Money shall be retained by the Government as Security Deposit for the due fulfillment of contract. If upon intimation being given to me /Us/ by the authority authorized by the Governor under Article 299(i) of the constitution hereinafter called the "Accepting Authority" of acceptance of Tender. I /We fail to be make the additional Security Deposit then I / We agree to forfeiture of E.M.D. Any notice required to be served on me/us personally or forwarded me /us by post (registered or ordinary) or left at my /our address given herein. Such notice shall if sent by post be deemed to have been served on my/Us at the time when in due course of post it would be delivered at the address to which this sent.
- 7. I/We fully understand that on receipt of communication of acceptance of tender from the accepting authority, there emerges a valid contract between me/us and the Governor of Tamil Nadu Valid and the Tender documents/i.e tender notice, tender conditions schedule, General conditions to the control and special conditions of the tender, Negotiation letters, communication of acceptance of tenders shall constitute the contract for this purpose and be the foundation of rights of both the parties as defined inclause (iv) of tender Notice, provided that if shall be open to the accepting authority to insist on execution of any written agreement by tenderer, if administratively considered necessary or expedient.
- 8. I/We have also signed the copy of the Tamil Nadu building practice and addend volume thereto, maintained in the Division Office, in acknowledgement of being bound by all conditions of the clauses of the General conditions to the contract and all specification for items of work described by the specifications number in schedule.

- 9. On consideration of the payment of Rupees or such other sum as /may be arrived at under the clause of the General conditions to the contract, relating to payment on lumpsum basis or by final measurement at unit prices. I /We agree subject to said conditions to execute and complete the works shown upon the drawing specially from number 1 to inclusive (Schedule B) of probable quantities shown (Schedule A) with such variation by way of addition to or alterations, deduction from the said work and method of payment therefor as are provided for in the said conditions.
- 10.1. The term Executive Engineer in the said conditions shall mean the PWD officer in charge of the Divisions having jurisdiction for the time being over the work who shall be competent to exercise all the powers and privileges reserved herein favour of the Government with the previous sanction of or subject to ratification by the competent authorities in case where such sanction or ratification may be necessary and who has been duly authorized under Article 299 (1) of the constitution.
- 10.2. In the event of the work being transferred to any other Circle /Division /Sub-Division, the Superintending Engineer / Executive Engineer/ Asst. Executive Engineer who is incharge of Circle Division /Sub -division have jurisdiction over the work shall be competent the exercise all the powers and privileges reserved in favour of Government
- 11. I /We agree that the time shall be considered as the essence of this contract and to commence the work as soon as this contract is accepted by the competent authority as defined by the Tamil Nadu Public Works Department code and the site (or premises ) is handed over to me/us provided for in the said conditions and agree to complete the work within <u>Five</u> months from the date of such handing over to the site(or premises) and to show progress as defined in the tabular statement "Rate of progress" subject Nevertheless to the provision for extension of time contained in clause 56 of the General condition to the contract appended to the Tamil Nadu building practice.
- 12. I /We agree that upon the terms and conditions of this contract being fulfilled and performed to the satisfaction of the Executive Engineer the Security Deposited by me/ us herein before recited or such portion therefore as I/ We may be entitled to under the said condition be paid back to me/ us provided to clause 64 of the General condition to the contract.
- 13. I / We are professionally qualified and my our qualifications are as follows;

I /We in pursuance of clause 18 of tender notice undertake to employ the following technical staff for supervising the work and will see that one of them is always at site during working hours personally checking all items of works and paying extra attention to such works as may require special attention (e.g) reinforced cement concrete.

#### ANNEXURE AT TENDER NOTICE SCHEDULE 'A'

#### SCHEDULE FP RATES AND APPROXIMATES QUANTITIES

a) The quantities here given are these which the lumsum tender cost of the work is based but they are subject to alterations, omissions, deduction or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done. The unit rate noted below are these governing payment of extras or deductions for omissions according to the conditions or the contract as set forth in the General conditions or specifications of this contract.

b) It is to be expressly under stood that the measured work is to be taken net (not with standing any custom or practice to the contrary) according to the actual quantities when in place and finished according to the drawing or as may be ordered from, time to time by the Executive Engineer and the cost calculated by measurement or weight at the respective prices, without any additional charge for any necessary and contingent works connected there with. The rates quoted are for works in site and complete in every respect.

_				RATE	<u>UNIT</u>	AMOUNT
Item No.	Probable Quantity Figures and in words	Description of work	TNBP No.	in Figures and words	Works	Figures

The second Sub-Division of this (i.e) column 3 is for entering description of works such as numbers, cubic metre, kg etc.,

#### LIST OF DRAWINGS

#### SUPPLEMENTAL

Note : All Drawings to be signed by the Contractor as well as the officer entering into the contract		condit	As referred to in the specification including the General condition to the contract of Tamil Nadu Building practice.			
Sl. No.	Drawing No.	Description	Sl. No.	Drawing No.	Description	Date on which the drawing was supplied.
(1)	(2)	(3)	(4)	(5)	(6)	(7)

List of specifications for the various items of works supplementing those described in schedule by the standard specifications numbers.

1. The contractors shall employ the following Technical staff for supervising the work and shall see that one of them is always at site during working hours, personally checking all items of work and paying extra attention to which works as may demand special attention (e.g) Reinforced cement concrete work etc.,

Name of the Member of the
Technical staff to be employed

Qualification

Note: In case the contractor is himself professionally qualified the above specification should be suitably altered and in case in which the contractor selected has not given as undertaking to employs qualified men it should be scored out.

Note: Additional specification if any, which have to be entered in Schedule 'C' should be entered below items (1) above and numbered continuously.

#### ADDITIONAL CONDITIONS EMPLOYMENT OF TECHNICAL ASSISTANTS

The tenderer who himself is not professionally qualified, undertake to employ qualified technical men at this cost to look after the work. The tenderer should state in clear terms whether he undertake to employ Technical men required by the Department specified in the schedule below for the work. In case the selected tenderer is professionally qualified or has undertaken to employ technical men under him he should see that the Technically qualified men is always at the site of work during working hours, personally checking all items of works and paying extra attention as such works as may demand special attention (e.g) reinforced cement concrete works etc.

VALUE OF CONTRACT	EMPLOYMENT OF TECHNICAL PERSONNEL
1. From one to Rs.5.00 lakhs	1. One Diploma Holder in Civil Engineering (OR) 2. Not less than one retired Junior Engineer
2. From Rs.5.00 lakhs to Rs.10.00 lakhs	1. One B.E., (Civil) (OR)
	2. Equivalent Degree Holder (OR)
	<ol> <li>Not less than one retired sub-divisional officer. AEE / ADE (OR)</li> <li>One Diploma Holder with three years experience.</li> </ol>
3. From Rs.10.00 lakhs to Rs.25.00 lakhs	1. One B.E., (Civil) with 3 years experience plus One Diploma Holder in Civil Engineering (OR)
	2. Equivalent Degree Holder with 3 years experience plus One Diploma Holder in Civil Engineering (OR)
	3. Not less than one retired sub-divisional Officer plus One Diploma Holder in Civil Engineering (OR)
	4. Two Diploma Holders in Civil Engineering with 3 and 5 years experience respectively.

4. From Rs.25.00 lakhs to Rs.50.00 lakhs	1. One B.E. (Civil) with 3 years experience plus two Diploma Holder in Civil Engineering (OR)
	2. One B.E., (Civil) with 3 years experience plus Two retired Junior Engineers. (OR)
	3. Equivalent Degree Holder with 3 years
	experience plus Two Diploma Holder in
	Civil Engineering Or Two retired Junior
	Engineers (OR)
	4. One retired Sub-Divisional Officer (AEE
	or ADE plus Two Diploma Holders in Civil
	Engineering or and retired SDO (AEE or
	ADE) plus Two retired Junior Engineers.
5. Above Rs.50.00 lakhs	1. To be examined in individual cases
	depending upon the nature of work and
	Technical skill involved and defined in the
	tender notice regarding the No.of qualified
	Technical personnel to be employed by the
	contractor.

- 6. A penalty of Rs.2,000/- PM for Diploma Holder and Rs.5000/-P.M. for Degree Holder be levied in case of default on the part of contractors in the norms mentioned above.
- 7. The employment of Technical Assistance should be based only on the value of contract. Engineers. with Mechanical Engineering qualification and retired from Civil Engineering Departments and also suitable to supervise the Civil Engineering works because of their Experience in Civil Engineering field.
- 8. It will not be incumbent on the part of the Contractor to employ Technical Assistants when the work is kept in abeyance due to valid reasons and if during such period on the opinion of the Executive Engineer. The Employment of Technical Assistants are required for the due fulfillment of the Contract.

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#### CONTRACTOR

9. A movement register should be opened and maintained for Technical Assistants employed by the Contractor or for the Technical or qualified contractor. The Technical Assistant or Technically qualified contractor may be noted their arrival and the departure timings every day along with their initials. Such Register should be produced during inspection of the Inspecting Officer.

10. Without prejudice to the Generosity of the above clause the Contractor shall during the currency of the contract, when called upon the Engineer-in-charge engaged and also ensure engagement by the sub contractors and other employed the contractor in connection with the work, such number of apprentices in the category and for such period as may be required by the Engineer incharge. The contractors shall trained them as required under the Apprentices Act. 1961 and the Rules made there under and shall be responsible for all obligations of the employer under the said act including the liability to make payments to apprentice as required under said Act.

On evaluation of Tender if it is found that it the overall quoted amount of the Tender is less than 5 to 15% of the value put to tender, the contractor shall pay an additional security at 2% of the estimated value. If the tender discount exceeds 15% to 20% the contractor shall pay an additional security deposit of 50% of the difference between the quoted amount and estimate amount, failure to furnish the Additional Security Deposit within 15 days from the date of receipt of acceptance order and execute the agreement shall entail cancellation of award of contract and forfeiture of EMD furnished.

### SPECIAL CONDITION OF CONTRACT

#### **GOODS & SERVICE TAX**

- The Government of India has notified vide notification No.20/2017 and notification no.24/2017 the consessional rate of GST at 12% (CGST 6% + SGST 6%) is leviable for any Government Contract wheather Civil or Electrical irrespective of the GST rate applicable on purchase of goods used in the execution of Government contract works. The GST amount will be calculated at 12% of sum of tender value (excluding GST) entered by the tenderer for the construction cost specified in BOQ subject to GST rate applicable as amended from time to time.
- As per notification 202 section 7 sub section 2 of the Tamilnadu Goods and Services act 2017 (Tamilnadu act 19/2017) activities or transaction under taken by State Government shall be treated neither as supply of goods nor supply of services.
- 3. As per Public Works Department Schedule of Rates under general note 8(ix), the contractor is eligible to get refund of excess tax paid or liable to pay tax for this contract.
- 4. As per chatpter IX (Section 41) of Tamil nadu Goods and Services act 2017 every registered person may be entitled to the credit of eligible input tax, as self assessed, in his return and such amount shall be credited on provisional basis to his electronic credit ledger and the contractor need to pay the GST amount towards his GST Registration No.

#### SPECIAL CONDITIONS FOR CEMENT AND STEEL

#### **CEMENT**

The Contractor make his own arrangements to procure of cement to required specification for the works

- a) Contractor shall procure cement required for the works only from the reputed cement factories (Main produce of their authorized agents) Manufacturing cement (ISI Standards) acceptable by the Executive Engineer. The contractor shall furnish to the Executive Engineer bill of payment and certificate issued by the manufactures of their authorized agents to authenticate procurement of quality cement from the approved cement factory. The contractor has make his own arrangements for safe package and adequate storage of cement.
- b) The contractor shall procure cement in standard packing of 50 Kg. per bag from authorized manufactures, the contractor shall make necessary arrangements for actual weighment of random sample from the valuable stock and shall confirm with the specification laid down by the ISI
- c) Cement shall be got tested for all the tests atleast one month advance before use of cement bags brought and kept at site godown. The cement shall be tested as and when required by the departmental officers in PWD laboratories or any other laboratories as directed by the Executive Engineer. The cost of testing charges shall borne by the contractor. Separate payment need not be made to the contractor for testing the cement.
- d) The use of admixtures and agents shall be made as per the directions of the Executive Engineer. The cost of centage storing stocking, handling, batching, building shall be borne by the contractor.
- e) The contractor should store the cement 60 days requirement atleast one month in advance to ensure the quantity of cement so brought to site and shall for with remove the same without the written permission of the Executive Engineer.

- f) The contractor shall forth with remove the cement from the work site, any cement that the field officer of PWD may disallow for us on account of failure to meet the required quality and standard.
- g) The contractor shall have to construct sheds storing cement having capacity not lower than the cement required for 90 days use at approved locations. The field officers of PWD shall have free access to such stores at all times.
- h) The contractor shall further at all times satisfy the PWD Engineers and or production of proofs and tools by submission on of returns and other proofs as directed that the cement is being used as and approved by the Executive Engineer for the purpose and the contractor shall at all taxes, keep his records upto date to enable the Executive Engineer to apply such checks as may be desired.
- i) Cement which has been unduly long in storage with the contractor on alternatively has deterioration due to Inadequate storage and thus became unfit for use on works will be rejected by the department officers and on claim will be entertained. The contractor shall forth with remove form the work site any cement the Executive Engineer may disallow for use on works and replace it by cement complain with the relevant Indian Standards.

#### **STEEL :**

The contractor shall provide mild steel RTS Steel bars at their own cost. High yield strength deformed bars, rods and structural steel etc., required for the works only from the main and secondary produced manufacturing steel or their authorized agents to prescribed specification of Indian standards require marks and acceptable to Executive Engineer Necessary ISI test certificates are to be produced to Executive Engineer before use on works. The cost forwards the test shall be contractor own cost, The testing of rods shall be done by the contractor in any of the PWD laboratories or any other laboratories at directed by the Executive Engineer. The diameter and weight of size shall be as per standard steel tables.

PWD

#### Name of Work : Construction of Veterinary Dispensary building at Thanipadi in Tiruvannamalai District

			Estimate	e Rs. 47,85,000/-		
SI. No.	Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
1	102.00 M <sup>3</sup> (One Hundred and Two Cubic Metres)	Earth work excavation for foundation in all soils and sub-soils and to full depth as may be directed except in rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary and depositing the surplus earth within the compound in places shown by the departmental officers with an initial lead of 10 mts and initial lift of 2 mts. and clearing and levelling the site, etc., complete complying with standard specification.	23 & 24 V, VI, S2	Rs.	1 M <sup>3</sup> (One Cubic Metre)	
2	40.00 M <sup>3</sup> (Forty Cubic Metres)	Earth work open excavation in all soils and sub-soils and to full depth as may be directed except in rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary and depositing the excavated earth with a lead of 10 mts. within the compound in places shown by the departmental officers and clearing and levelling the site, etc., complete complying with standard specification.	23 & 24 V, VI, S2	Rs.	1 M <sup>3</sup> (One Cubic Metre)	
3	19.00 M <sup>3</sup> (Nineteen Cubic Metres)	Supplying and filling in foundation, basement, etc with filling M-Sand in layers of not more than 15 cm thick well watered, rammed and consolidated etc. complete complying with standard specification and as directed by the departmental officers.	24 & 25 V, VI, S2	Rs.	1 M <sup>3</sup> (One Cubic Metre)	
4	47.00 M <sup>3</sup> (Forty Seven Cubic Metres)	Refilling with excavated earth in layers of not more than 15 cm thick well rammed, watered and consolidated etc. complete complying with standard specification No. of Corrections in figures No. of Corrections in words	24 & 25	Rs.	1 M <sup>3</sup> (One Cubic Metre)	
	Contractor	No. of overwritings in figures No. of overwritings in words <sup>31</sup>			cutive Engineer, PV M) Divn, Tiruvanna	

## Estimate De 17 95 000/

SI. No.	<sup>32</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
5	64.00 M <sup>3</sup>	Supplying and filling of conveyed gravel by lorry in basement filling	24 & 25	Rs.	1 M <sup>3</sup>	
	(Sixty Four Cubic Metres)	including stacking for premeasurement, conveyance loading and unloading charges and all other incidential charges and including filling laying watering and consolidating etc., complete as directed by the dept., Officers and complying with standard specification.			(One Cubic Metre)	
6	14.00 M <sup>3</sup>	Cement Concrete 1:5:10 (One Cement, Five M-Sand and Ten hard broken stone jelly) using 40 mm gauge hard broken granite stone jelly <b>for foundation</b> including dewatering wherever necessary and laid in	28 V, VI, S2 (SS.A) VI		1 M <sup>3</sup> (One Cubic	
	(Fourteen Cubic Metres)	layers of not more than 15 cm thick well rammed, consolidated and curing etc. complete complying with standard specification	(33.A) VI		Metre)	
7	10.50 M <sup>3</sup>	Brick work in following Cement Mortar 1:3 (One Cement and Three M-Sand) using best quality II class ground moulded chamber burnt bricks	31 & 31C	Rs.	1 M <sup>3</sup> (One Cubic	
	(Ten Point Five Zero Cubic Metres)	of size 9" x 4-3/8" x 2-3/4" including neat finishing, curing, etc., complete complying with standard specification.			Metre)	
		For Foundation and Basement				
8	12.00 M <sup>3</sup>	Brick work in following Cement Mortar 1:5 (One Cement and Five M-Sand) using best quality II class ground moulded chamber burnt bricks	31 & 31C	Rs.	1 M <sup>3</sup>	
	(Twelve Cubic Metres)	of size 9" x 4-3/8" x 2-3/4" including neat finishing, curing, etc., complete complying with standard specification.			(One Cubic Metre)	
		For Foundation and Basement				
9		Brick work in following Cement Mortar 1:6 (One Cement and Six M-Sand) using best quality II class ground moulded chamber burnt bricks of size 9" x 4-3/8" x 2-3/4" including neat finishing, curing, etc., complete complying with standard specification. No. of Corrections in figures	31 & 31C			
		No. of Corrections in words				
		No. of overwritings in figures		Exe	cutive Engineer, PW	D.,
	Contractor	No. of overwritings in words <sup>32</sup>		Bldgs (C8	kM) Divn, Tiruvannan	nalai - 3.

SI. No.	Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
a)	21.00 M <sup>3</sup>	For Foundation and Basement		Rs.	1 M <sup>3</sup>	
	(Twenty One Cubic Metres)				(One Cubic Metre)	
b)	42.00 M <sup>3</sup>	For Superstructure in Ground Floor		Rs.	1 M <sup>3</sup> (One Cubic	
	(Forty Two Cubic Metres)				Metre)	
10	86.00 M <sup>2</sup> (Eighty Six Square Metres)	Brick partition walls of following thickness using best quality II class ground moulded chamber burnt bricks of size 9" x 4-3/8" x 2-3/4" in Cement Mortar 1:3 (One Cement and Three M-Sand) using hoop iron reinforcement if found necessary including curing etc. complete and as directed by the departmental officers. (Hoop iron reinforcement will be measured and paid for separately)	31 & similar to 31C V, VI (S5), VII	Rs.	1 M <sup>2</sup> (One Square Metre)	
		For Superstructure in Ground Floor - 11.50 cm thick				
11	23.50 M <sup>2</sup> (Twenty Three Point Five Zero Square Metres)	Damp proof course with Cement Mortar 1:4 (One Cement and Four M- sand) 12mm thick mixed with best approved quality water proofing compound conforming to Indian Standard specification as specified by the departmental officers at 2% by weight of cement used, finishing and curing etc. complete complying with standard specification.		Rs.	1 M <sup>2</sup> (One Square Metre)	

No. of Corrections in figures No. of Corrections in words No. of overwritings in figures No. of overwritings in words

SI. No.	Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
12	81.00 M <sup>2</sup> (Eighty One Square Metres)	Supplying and erecting steel Centering including necessary supports for plane surfaces for Reinforced Cement Concrete works such as column footings, column pedestals, plinth beams, grade beams, staircase steps, etc. which require only nominal strutting using mild steel sheets of size 90cm x 60cm and 10 BG stiffened with welded mild steel angles of size 25mm x 25mm x 3 mm for boarding, laid over silver oak joists of size 10cm x 6.5cm spaced at about 75cm centre to centre or at suitable intervals etc. complete in all floors complying with standard specification. (Payment for centering shall be given after the concrete is laid)	30(S) 86 86 A V, VI (S3) VII	Rs.	1 M <sup>2</sup> (One Square Metre)	
13		Supplying and erecting centering for sides and soffits including necessary supports and strutting upto 3.29 M height for plane surfaces as detailed below in all floors with all cross bracings using Mild Steel sheets of size 90 x 60 cm and 10 BG stiffened with welded Mild Steel angle of size 25mm x 25mm x 3 mm for boarding laid over silver oak joists of size 10cm x 6.50 cm spaced at abote 90 cm centre to centre and supported by casurina props of 10cm to 13 cm dia spaced at not more than 75 cm centre to centre etc. complete complying with the standard specificaiton. (Payment for centering shall be given after the concrete is laid)	30(S) 86 86 A V, VI (S3) VII			
a)	245.00 M <sup>2</sup> (Two Hundred and Forty Five Square Metres)	For plane surfaces such as RCC floor slab, roof slab, beams, lintels, bed blocks, landing slab, waist slab, portico slabs and beams, etc.		Rs.	1 M <sup>2</sup> (One Square Metre)	
b)	156.00 M <sup>2</sup> (One Hundred and Fifty Six Square Metres)	For plane surfaces such as rectangular or square RCC columns, sunshades, top and bottom slab of RCC boxing, etc.		Rs.	1 M <sup>2</sup> (One Square Metre)	
	Contractor	No. of Corrections in figures No. of Corrections in words No. of overwritings in figures No. of overwritings in words <sup>34</sup>			cutive Engineer, P\ M) Divn, Tiruvann	

SI. No.	<sup>35</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
c)	24.50 M <sup>2</sup>	For plane surfaces such as vertical slab, side slabs of boxing,		Rs.	1 M <sup>2</sup>	
	(Twenty Four Point Five Zero Square Metres)	vertical drops, facia, vertical wall, etc.			(One Square Metre)	
14		Providing and laying in position, standardised concrete Mix M-20 Grade in accordance with IS:456-2000, using 20mm and down graded hard broken granite stone jelly for all RCC items of works with minimum cement content of 325 kg/ms and maximum water cement ratio of 0.55, including admixture (plasticiser / super plasticiser) in recommended proportions as per IS:9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability with about (5 cu.m.) 7730 kg. of 20mm machine crushed stone jelly and with about (3.3 cu.m.) 5156 kg. of 10-12mm machine crushed stone jelly and with about (4.79 cu'm') 7670 kg. of M-sand, but excluding cost of reinforcement grill and fabricating charges, centering and shuttering and also including laying, vibrating with mechanical vibrators, finishing, curing, etc. and providing fixtures like fan clamps in the RCC floor/ roof slabs wherever necessary without claiming extra, etc., complete complying with standard specification and as directed by the departmental officers. The coarse and fine aggregates to be used should comply with the requirements of IS standards. (No separate payment will be made by the Department for the excess usage of materials).	30			
a)	26.00 M <sup>3</sup>	For Foundation and Basement		Rs.	1 M <sup>3</sup> (One Cubic	
	(Twenty Six Cubic Metres)				Metre)	
		No. of Corrections in figures No. of Corrections in words				
		No. of overwritings in figures			cutive Engineer, P	
	Contractor	No. of overwritings in words <sup>35</sup>		Bldgs (C&	kM) Divn, Tiruvann	amalai - 3.

SI. No.	<sup>36</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and ir words	Unit in Figures and in words	Amount
b)	42.50 M <sup>3</sup>	For Superstructure in Ground Floor		Rs.	1 M <sup>3</sup>	
	(Forty Two Point Five Zero Cubic Metres)				(One Cubic Metre)	
15	12.00 M <sup>2</sup>	Manufacturing, supplying and fixing Precast Reinforced Cement Concrete slabs of following thickness in RCC 1:2:4 (one cement, two M- sand and four aggregates), using following HBGS jelly excluding cost	Similar to - 29	Rs.	1 M <sup>2</sup> (One Square	
	(Twelve Square Metres)	of reinforcement steel in position but including cost of moulding charges, casting of slab, finishing, curing and fixing in position in all floors etc., complete complying with standard specification and as directed.			Metre)	
		Reinforced Cement Concrete Precast Slab 50mm thick using 20mm jelly				
16	95.00 Qtl	Supplying, fabricating and placing in position Mild Steel / Ribbed Tor Steel grills for all RCC works as per design given including cost of steel	SS 66 - 86A	Rs.	1 Qtl (One Quintal)	
	(Ninety Five Quintal)	and G.I. binding wire in all floors etc. complete complying with standard specification. (Contractor has to make his own arrangements for the supply of steel and binding wire)			, , , , , , , , , , , , , , , , , , ,	
17	20.50 M <sup>3</sup>	Cement Concrete 1:5:10 (One Cement, Five M-Sand and Ten hard broken stone jelly) using 40 mm gauge hard broken granite stone jelly	28 V, VI, S2	Rs.	1 M <sup>3</sup>	
	(Twenty Point Five Zero Cubic Metres)		(SS.A) VI		(One Cubic Metre)	
18	3.25 M <sup>3</sup>	Plain Cement Concrete 1:2:4 (one cement, two M-Sand and four hard	30	Rs.	1 M <sup>3</sup>	
	(Three Point Two Five Square Metres)	broken stone jelly) using 20mm jelly for wearing coat including laying, compacting, finishing and curing, etc., complete as per standard specificatins and as directed by the departmental officers. No. of Corrections in figures			(One Cubic Metre)	
		No. of Corrections in words				
		No. of overwritings in figures		E	kecutive Engineer, P\	VD.,
	Contractor	No. of overwritings in words <sup>36</sup>		Bldgs (	C&M) Divn, Tiruvanna	amalai - 3.

SI. No.	Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and A in words	mount
19	91.50 M <sup>2</sup> (Ninety One Point Five Zero Square Metres)	Paving the floor with best quality Double Charged Vitrified Tiles of size 600 x 600 x 8mm of approved colour, shade and quality laid in cement mortar 1:3 (one cement and three M-Sand) 20mm thick in all floors and the top pointed with the white cement mixed same colour pigments etc., complete complying with standard specification. (The make and brand of the tiles should be got approved by Executive Engineer before use on works)		Rs.	1 M <sup>2</sup> (One Square Metre)	
20	18.50 M <sup>2</sup> (Eighteen Point Five Zero Square Metres)	Flooring with self design color digital vitrified parking tiles of size 305 x 305 x 9 mm laid over 20 mm thick cement mortar 1:3 (One Cement and Three M-Sand) base mortar over the existing slab / floor including cutting the tiles to the required size with special cutter wherever necessary, laying in position and pointing with white cement mixed with colouring pigment at the rate of 0.3 Kg. / sq.m. etc., complete complying with standard specification. (The make and brand of the tiles should be Johnson / Kajaria / Somany / Nitco / RAK which has to be got approved by Executive Engineer before use on works)	Spl	Rs.	1 M <sup>2</sup> (One Square Metre)	
21	8.50 M <sup>2</sup> (Eight Point Five Zero Square Metres)	Flooring with self design jointfree rectified ceramic tiles of size 305 x 305 x 8 mm laid over 20 mm thick cement mortar 1:3 (One Cement and Three M-Sand) base mortar over the existing slab / floor including cutting the tiles to the required size with special cutter wherever necessary, laying in position and pointing with white cement mixed with colouring pigment at the rate of 0.3 Kg. / sq.m. etc., complete complying with standard specification. (The make and brand of the tiles should be Johnson / Kajaria / Somany / Nitco / RAK which has to be got approved by Executive Engineer before use on works)	Spl	Rs.	1 M <sup>2</sup> (One Square Metre)	
	Contractor	No. of Corrections in figures No. of Corrections in words No. of overwritings in figures No. of overwritings in words			cutive Engineer, PWD., M) Divn, Tiruvannamal	

SI. No.	<sup>38</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
22	24.50 M <sup>2</sup> (Twenty Four Point Five Zero Square Metres)	Dadooing walls with Colour designed digital print ceramic tiles, with borders, with size of 300mm x 450mm x 8mm and above set in Cement Mortar 1:2 (One Cement and Two M-Sand) 10mm thick and pointing the joints with white cement mixed with colouring pigments at the rate of 0.40 Kg. / sq.m. nbatly in all floors, curing, etc., complying with standard specification and as directed by the departmental officers. (The make and brand of the tiles should be like Johnson / Kajaria / Somany / Nitco / RAK or Equivalent which has to be got approved by Executive Engineer before use on works)	39 A	Rs.	1 M <sup>2</sup> (One Square Metre)	
23	95.00 M <sup>2</sup> (Ninety Five Square Metres)	Providing granolithic floor finish of 25mm thickness with plain cement concrete 1:2:4 (One Cement, Two M-Sand and Four aggregate) using 10 to 12mm gauge hard broken stone jelly including laying, finishing and the top rubbed smooth with power trawl, thread lining, curing etc. complete complying with standard specification and as directed by the departmental officers. (The rate is inclusive of necessary planking for panelling wherever necessary and as directed by the departmental officers)	28 & 39 H	Rs.	1 M <sup>2</sup> (One Square Metre)	
24	12.00 M <sup>3</sup> (Twelve Cubic Metres)	Weathering course in brick jelly lime concrete using broken brick jelly of size 20mm uniform gauge in pure slaked lime (no M-Sand to be used) to the proportion of brick jelly to lime being 32:12.5 by volume and laid over the RCC roof slab in a single layer of required slope and finished by beating the concrete with wooden beaters of approved pattern, keeping the surface constantly wet by sprinkling lime jaggery water, etc., complete as per standard specification and as directed by the deparmental officers.	44, 44H & 44I	Rs.	1 M <sup>3</sup> (One Cubic Metre)	
25	155.00 M <sup>2</sup> (One Hundred and Fifty Five Square Metres)	Finishing the top of roof with one course of machine pressed tiles of size 230mm x 230mm x 20mm of approved quality set in Cement Mortar 1:3 (One Cement and Three M-Sand) 12mm thick mixed with water proofing compound conforming to ISS at 2% by weight of cement used and the joints pointed neatly to full depth of tiles with the same cement mortar mixed with red oxide and water proofing compound including curing etc., complete complying with standard specification and as directed by the departmental officers No. of Corrections in figures No. of Corrections in words	44 H	Rs.	1 M <sup>2</sup> (One Square Metre)	
	Contractor	No. of overwritings in figures No. of overwritings in words <sup>38</sup>			cutive Engineer, P\ .M) Divn, Tiruvanna	

SI. No.	<sup>39</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
26	61.00 M <sup>2</sup> (Sixty One Square Metres)	Supplying and fixing fine polished cuddapah slab of <b>38 to 40mm</b> <b>thickness</b> for cupboard arrangements including laying to correct alignment with necessary cement mortar and black powder etc, complete complying with standard specification and as direct.	Spl	Rs.	1 M <sup>2</sup> (One Square Metre)	
27	Metres)	Supplying and fixing in position best approved of BIS quality <b>110mm</b> <b>dia PVC rain water down fall</b> pipes having a pressure of 4 kg. / sq.cm including cost of necessry PVC shoe, PVC bend, cast iron gratings of required diameter and special clamps, brass screws, nails, etc., and fixing of cast iron gratings at junction of parapet and the RCC roof slab including finishing neatly etc., complete. The rate shall be inclusive of cast of removable cast iron grating. The PVC pipe shall be fixed in wall with special type of "U" clamp at the centre of the pipe line in addition to those for more than 3.0 metre pipe length, etc., complete complying with standard specification.	107	Rs.	1 RM (One Running Metre)	
28	31.70 RM (Thirty One Point Seven Zero Running Metres)	Supplying and fixing inposition C.R.C.A.pressed steel doors frame as per I.S.4351/1976 of size 105x60mm with 35x12mm rebate on all sides with 1.25mm thick (18 gauge) sheet frames special profile extruded section including bottom tie hold faste at appropriate places and provision to fix aldrops tower bolts hinges and lock strike plate etc.The door frame inner shall be packed with CC 1:2:4 using 12mm guage HBG stone jelly including fixing the door frames inposition and dimantling the masonry and concrete wherever necessary and redoing the same original condition after fixing including scaffolding charges and labour charges and door frame will be given one coat of Red Oxide primer etc. Complete complying with standard specification The rate shall inclusive of all materials, labour, transportation, loading, unloading, handling, charges etc. The sample of materials should be got approved by the Exe. Engineer before use on works.	Spl	Rs.	1 RM (One Running Metre)	
		No. of Corrections in figures No. of Corrections in words				

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SI. No.	<sup>40</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
29	2.87 M <sup>2</sup> (Two Point Eight Seven Square Metres)	Supplying and fixing of Solid Core Flush shutters with commerical ply on both sides with teak wood lipped alrorund 35mm thick conforming to I.S.12406\1989 with 35x12mm T.W. lipping on all edges with necessary adhesive and C.P.Screws, including fixing of aldrops, tower bolts, hinges and lock strike plates, putty, fevical, varnish, for T.W. lipping thinner colouring agent etc, and aluminium anodised 125mm size hinges 6 nos best quality of aluminium anodised fittings of 250 mm, tower bolt 2 nos 200mm tower bolts 1 nos, 250mm aldrops 16mm dia rod 1 no 125mm long handle 2 nos 40mm dia nylon bush 1no, door stoper 2 Nos shall be provided. The rate is inclusive cost of fevical and fixing charges, transportation, loading, unloading and all other incidental charges handling charges etc., complete complying with standard specification. The sample of materials and fittings should be got apprved by the Engineer-in-charge before use on works. <b>(Double Leaves)</b>	74 & 81A	Rs.	1 M <sup>2</sup> (One Square Metre)	
30	9.23 M <sup>2</sup> (Nine Point Two Three Square Metres)	Supplying and fixing of Solid Core Flush shutters with commerical ply on both sides with teak wood lipped alrorund 35mm thick conforming to I.S.12406\1989 with 35x12mm T.W. lipping on all edges with necessary adhesive and C.P.Screws, including fixing of aldrops, tower bolts, hinges and lock strike plates, putty, fevical, varnish, for T.W. lipping thinner colouring agent etc, and aluminium anodised 125mm size hinges 3 nos best quality of aluminium anodised fittings of 200 mm, tower bolt 1 no 150mm tower bolts 1 nos, 250mm aldrops 16mm dia rod 1 no 125mm long handle 2 nos 40mm dia nylon bush 1no, door stoper 1 No shall be provided. The rate is inclusive cost of fevical and fixing charges, transportation, loading, unloading and all other incidental charges handling charges etc., complete complying with standard specification. The sample of materials and fittings should be got apprved by the Engineer-in-charge before use on works. <b>(Single leaf)</b>	74 & 81A	Rs.	1 M <sup>2</sup> (One Square Metre)	
		No. of Corrections in figures				
		No. of Corrections in words No. of overwritings in figures		F.v.s.	utivo Engineer D	
				Exec	cutive Engineer, P	vvD.,

SI. No.	Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
31	3.78 M <sup>2</sup> (Three Point Seven Eight Square Metres)	Supplying and fixing 30mm thick solid core PVC door shutter with PVC frame of size 50x45mm with suitable rebate for housing the shutter (Conforming to IS 4020 with updated amendment) consisting of frame made out of MS tubes 19 gauge thickness and size of 19 x 19mm for styles and 15x15mm for top and bottom rails. M.S. frame shall be covered with 5mm thick heat moulded PVC 'C' channel of size 30 x 50mm forming styles, and 75x50mm for top rail, lock rail and bottom rail on either side and 10mm (5mm x 2) thick 20mm wide cross PVC sheet as gap insert for top rail, bottom rail. Paneling of 5mm thick PVC sheet bearing on either side and join together other side etc. An additional 5mm thick PVC strip of 20mm width is to be stack and the interior side of the 'C' channel using PVC sealant adhesive including cost of all furniture fittings such as aluminium aldrop of size 250x16mm - 1No., aluminium tower bolt 250x12mm - 1No. aluminium D type handle 200mm etc. complete, as per direction of Engineer in charge and drawing.	Spl	Rs.	1 M <sup>2</sup> (One Square Metre)	
32		Manufacturing, Supplying and fixing in position of steel windows with the following specifications. Outer frames of windows made of 'Z' section F7D of size 33 x 25 x 3mm at 1.419 Kg/m and mullion 'J' section (F4B) of size 46x25 x 3mm at 2.28 kg/m and shutter section of made of F7D of 33 x 25 x 3mm at 1.419 Kg/m as specified in IS 7452/1990. Each openable shutter should not exceed a width of 600mm to enable separate operations and easy maintenance. The panel of the shutters to be covered with 18 gauge cold rolled sheet of superior quality and welded intact with shutter frames. Horizontal stiffeners using 18x5mm MS flat at 0.70 Kg/m at 3 Nos. for each shutter and additional diagonal stiffeners of the same MS Flats at all the four corners of each shutters to the suitable length welded to the shutters, for holding the CR sheets in position firmly. 4 numbers of sturdy hinges and Two number of handle-cum-latch of special type made with 18x5mm MS Flats are revetted to the shutters at an appropriate height in window. Suitable opening is left for its easy operation. No. of Corrections in figures No. of Corrections in words				
		No. of overwritings in figures			cutive Engineer, PV	
	Contractor	No. of overwritings in words 41		Bldgs (C&	M) Divn, Tiruvanna	malai - 3.

SI. No.	42 Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and words	in Unit in Figures and in words	Amount
		A stopper square rod for handle is provided in the mullion section at suitable place to catch the window handle. Each window shutter having an adjustable stay made out of 18x5mm at 0.70 kg/m MS flat of length 320mm with three adjustable position. A matching peg is provided in the outer frame of the window at suitable place. 4 Nos. of hold fasts of 120mm length spliced at the nds are welded to the out frame of the window by using MS flat of 18x5 mm at 0.70 kg/m, welded to the shutter at two place equivalent from each other from top and bottom of the shutter. An MS square bar of 12mm size is welded to the inner face of the window at an equal interval not exceeding 100mm edge to edge between them. All members are painted with one cat of anti-corrosive red oxide primer as directed by the departmental officers. All sections should be in confirmed with IS7452/1990. The cost includes cost of all materials, labour charges and other incidental charges, etc., complete.				
a)	3.90 M <sup>2</sup>	Two Leaves	Spl	Rs.	1 M <sup>2</sup>	
	(Three Point Nine Zero Square Metres)				(One Square Metre)	
b)	9.75 M <sup>2</sup>	Three Leaves	Spl	Rs.	1 M <sup>2</sup>	
	(Nine Point Seven Five Square Metres)				(One Square Metre)	
		No. of Corrections in figures No. of Corrections in words				
	Contractor	No. of overwritings in figures No. of overwritings in words 42			Executive Engineer, P (C&M) Divn, Tiruvann	

SI. No.	<sup>43</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
33	1.08 M <sup>2</sup> (One Point Zero Eight Square Metres)	Supplying and fixing in position glazed steel ventilator with openable shutters frames and shutter framemade out of steel section conforming to IS 7452 / 1990. The outer frame made out of ' Z ' sec [F7D] of size 33 x 22 x 3 mm conforming to IS 7452/1990. The mullions are made out of [F4B] J section of size 46x25x3 mm and conforming to IS 7452 /1990. The shutters are individual and each of them can be operated separately. Sash bars are made of ' T ' Sec [T2] of size 25 x 22 x 3 mm 2 nos of sturdy hinges and one number of handle cum latch of special type are fixed are each openable shutter. Suitable opening in left for its easy operation one member of adjustable strings with fixing brackts of sufficient length are provided for each shutter 4 Nos. of 40 x 40 x 3 mm angle hold fast 230 mm length are welded with the frame at appropriate point M.S. square bars of 12mm dia is welded to the inner face of the ventilator at equal intervals not exceeding 10 cm spacing 3 mm Pin Headed glass is used for glazing with good quality and fixed with 15x12mm teakwood beadings with screws for fixing. The shutters are to open out side. All members are painted with one coat of red oxide primer etc., complete complying with standard specifications. The rate shall inclusive of all materials, labour, for fixing, primer, welding, transportation and all other incidential charges. The sample of materials and fittings should be got approved by the Exe. Engineer before use on works. (Top hung )		Rs.	1 M <sup>2</sup> (One Square Metre)	
34	960.00 Kg (Nine Hundred and Sixty Kilograms)	Supplying and fixing of M.S.grill of approved design for grill gate, grill work to doors and windows openings ramp etc., using necessary mild steel flats for inner and outer members which should be fixed on edges including priming coat of best approved quality red oxide primer etc., complete complying with standard specification.	Spl	Rs.	1 Kg (One Kilogram)	
		No. of Corrections in figures No. of Corrections in words				

No. of overwritings in figures

SI. No.	Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and words	I in Unit in Figures and Amoun in words
35	8.10 M <sup>2</sup> (Eight Point One Zero Square Metres)	Supplying and fixing in position steel balustrades using 20mm square rods spaced at 150mm centre to centre so that the two balustrades in each step shall be placed centrally and the top of balustrades connected with the hand rails (cost of hand rail shall be measured and paid separately) by means of MS flats of size 40mm x 6mm in the groove 40mm x 6mm provided at the bottom of hand rail; the bottom of balustrades shall be fixed on to the top of step concrete. An additional MS flat of size 50mm x 6mm shall be provided at the centre of balustrades connecting all square rods to the entire length including cost of square rods, flat and applying one coat of red oxide primer to the iron surfaces, etc., complete complying with standard specification and as directed by the departmental officers.		Rs.	1 M <sup>2</sup> (One Square Metre)
36	10.10 RM (Ten Point One Zero Running Metres)	Supplying and fixing 40mm dia GI pipe for staircase handrail including labour charges for cutting, welding and fixing with MS flats (excluding cost of flat), etc., as directed by the departmental officers	Spl	Rs.	1 RM (One Running Metre)
37	135.50 M <sup>2</sup> (One Hundred and Thirty Five Point Five Zero Square Metres)	Supplying and applying of two coats of putty of 3mm thick over the exposed RCC surface of ceiling including finishing the joints smoothly with grinding machine and the surface to be thoroughly cleaned out of dust and scrubbing. The surface shall then be allowed to dry for 48 hours. It shall then be sand papered (waterproof abrasive sheet) to give a smooth and even surface. Any unevenness shall be made good by applying 1st coat of putty mixed with water on the entire surface including filling up the undulations and applying 2nd coat of putty after 6 hours of 1st coat of putty and then sand papering (waterproof abrasive sheet) the same after it is dry and finishing the surface smoothly etc., complete complying with standard specifications and as directed by the departmental officers.	SS 56 & 57	Rs.	1 M <sup>2</sup> (One Square Metre)
		No. of Corrections in figures No. of Corrections in words			
		No. of overwritings in figures			Executive Engineer, PWD.,
	Contractor	No. of overwritings in words 44		Bldg	s (C&M) Divn, Tiruvannamalai - 3.

SI. No.	45 Appx. Quantity	Description of Work	TNBP No.		jures and in ords	Unit in Figures and in words	Amount
		(The rates are inclusive of hire charges for grinding machine with wheel, cost of sand paper (waterproof abrasive sheet) cost of putty blade, labour charges for grinding the joints and sand papering, two coats of putty, scrapping the putty area to level the surface smooth etc., complete) The putty should be got approved by the Executive Engineer before use on work					
38	290.00 M <sup>2</sup> (Two Hundred and Ninety Square Metres)	Special ceiling plastering and finishing the exposed surface of all RCC items of work such as slabs, beams, sunshades, facia, canopy slab, staircase waist slab, landing slab etc., with Cement Mortar 1:3 (One Cement and Three M-Sand) 10mm thick including hacking the surfaces, providing cement mortar nosing, beading for sunshades, staircases, steps, landing slabs and curing, etc., in all floors complying with standard specification and as directed by the departmental officers	SS 56 & 57	Rs.		1 M <sup>2</sup> (One Square Metre)	
39	630.00 M <sup>2</sup> (Six Hundred and Thirty Square Metres)	Plastering with Cement Mortar 1:5 (One cement and Five M-Sand), 12mm thick in all floors including curing etc. complete complying with standard specification and as directed by the departmental officers.	61 V, VI (S4) 3	Rs.		1 M <sup>2</sup> (One Square Metre)	
40	46.50 M <sup>2</sup> (Forty Six Point Five Zero Square Metres)	Plastering with Cement Mortar 1:3 (One cement and Three M-Sand), 12mm thick in all floors including curing etc. complete complying with standard specification and as directed by the departmental officers.	61 V, VI (S4) 3	Rs.		1 M <sup>2</sup> (One Square Metre)	
41	136.30 M <sup>2</sup> (One Hundred and Thirty Six Point Three Zero Square Metres)	White washing two coats with freshly burnt white shell lime in all floors including cost of lime, blue powder fevicol type gum, brushes, scaffolding charges, etc., complete complying with standard specification and as directed.	63	Rs.		1 M <sup>2</sup> (One Square Metre)	
		No. of Corrections in figures					
		No. of Corrections in words					
		No. of overwritings in figures				cutive Engineer, P\	
	Contractor	No. of overwritings in words <sup>45</sup>			Bldgs (C&	M) Divn, Tiruvanna	amalai - 3.

SI. No.	<sup>46</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Am in words	ount
42	552.00 M <sup>2</sup> (Five Hundred and Fifty Two Square Metres)	Supplying and painting the walls with two coats of oil bound distemper over one coat of water based cement primer including cost for distemper, primer, cleaning and scrapping the walls, rendering the walls smooth with necessary putty, brushes, scaffolding arrangements, labour charges, etc., as per standard specification. (The colour and shade of the distemper shall be got approved by the Executive Engineer before use of work).	61 V, VI (S4) 3	Rs.	1 M <sup>2</sup> (One Square Metre)	
43	368.00 M <sup>2</sup> (Three Hundred and Sixty Eight Square Metres)	Painting two coats of plastered wall surface with ready mixed Exterior emulsion paint of first class quality and of approved colour including thorough scrapping, clean removal of dirt, and including necessary plaster of paris putty, wherever required etc., complete complying with standard specification.	61 V, VI (S4) 3	Rs.	1 M <sup>2</sup> (One Square Metre)	
44	81.00 M <sup>2</sup> (Eighty One Square Metres)	Painting new iron works such as steel doors, windows, ventilators, window bars, balustrades etc., with two coats of best approved first quality and colour of synthetic enamel paint over the existing red oxide priming coat in all floors excluding cost of priming coat etc., complete complying with standard specification. (The make, quality and colour of paint should be got approved by the Executive Engineer before use on works.)	61 V, VI (S4) 3	Rs.	1 M <sup>2</sup> (One Square Metre)	
45	1.00 No (One Number)	Manufacturing, supplying and fixing of trevis arrangement for cattle using 50mm dia G.I. pipe of approved size and shape including labour charges for cutting, threading, jointing, bending, welding and fixing in position. The rate shall inclusive of cost of all materials, labour charges, taxes, transportation to site of wor, loading, unloading and all other incidental charges etc., complete complying with standard specificaions and as directed by the departmental officers. (The Trevis arrangements should be got approved by the Executive Engineer before use on works) No. of Corrections in figures No. of Corrections in words No. of overwritings in figures	Spl	Rs.	Each cutive Engineer, PWD.,	
	Contractor	No. of overwritings in words <sup>46</sup>			M) Divn, Tiruvannamalai	i <b>-</b> 3.

SI. No.	47 Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
46	55.00 RM (Fifty Five Running Metres)	Supplying, laying and jointing UPVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing PVC specials using PVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs, PVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the	98 & 102	Rs.	1 RM (One Running Metre)	
		dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with necessary scaffolding charges upto 4 metre height above ground level, etc., complete complying with standard specifications. The PVC pipes shall be got approved by Executive Engineer before use on works. Below ground level (External Water Supply). 32mm dia UPVC Pipe				
47		Supplying, laying and jointing UPVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing PVC specials using PVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs, PVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with necessary scaffolding charges upto 4 metre height above ground level, etc., complete complying with standard specifications. The PVC pipes shall be got approved by Executive Engineer before use on works <b>Above ground level (Internal Water Supply).</b>	98 & 102			
a)	35.00 RM	25mm dia UPVC Pipe		Rs.	1 RM (One Running	
	(Thirty Five Running Metres)				Metre)	
		No. of Corrections in figures				
		No. of Corrections in words				
		No. of overwritings in figures No. of overwritings in words 47			cutive Engineer, P\	
	Contractor			Biags (C8	M) Divn, Tiruvanna	amalal - 3.

SI. No.	<sup>48</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
b)	21.00 RM	20mm dia UPVC Pipe		Rs.	1 RM	
	(Twenty One Running Metres)				(One Running Metre)	
48		Supplying UPVC Specials (with working pressure 10 kg / sq.cm) in water supply arrangements (both in internal and external water supply arrangements) etc., complete complying with standard specification. (The UPVC specials should be got approved by the Executive Engineer concerned before use on works.)	98 & 102			
a)	4.00 Nos	32mm dia UPVC Elbow		Rs.	1 No.	
	(Four Numbers)				Each	
b)	6.00 Nos	25mm dia UPVC Elbow		Rs.	1 No.	
	(Six Numbers)				Each	
c)	6.00 Nos	20mm dia UPVC Elbow		Rs.	1 No.	
	(Six Numbers)				Each	
d)	3.00 Nos	32mm dia UPVC Tee		Rs.	1 No.	
	(Three Numbers)				Each	
e)	5.00 Nos	25mm dia UPVC Tee		Rs.	1 No.	
	(Five Numbers)				Each	
		No. of Corrections in figures No. of Corrections in words				
		No. of overwritings in figures			cutive Engineer, P	
	Contractor	No. of overwritings in words 48		Bldgs (C&	M) Divn, Tiruvann	amalai - 3.

SI. No.	<sup>49</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Amount in words
f)	4.00 Nos	20mm dia UPVC Tee		Rs.	1 No.
	(Four Numbers)				Each
g)	2.00 Nos	32mm dia UPVC Union		Rs.	1 No.
	(Two Numbers)				Each
h)	2.00 Nos	25mm dia UPVC Union		Rs.	1 No.
	(Two Numbers)				Each
i)	5.00 Nos	32mm dia UPVC Coupler		Rs.	1 No. Each
	(Five Numbers)				Lati
j)	5.00 Nos	25mm dia UPVC Coupler		Rs.	1 No.
	(Five Numbers)				Each
k)	3.00 Nos	20mm dia UPVC Coupler		Rs.	1 No.
	(Three Numbers)				Each
I)	3.00 Nos	25x20 mm dia UPVC Reducer Elbow		Rs.	1 No.
	(Three Numbers)				Each
		No. of Corrections in figures No. of Corrections in words			
	• • •	No. of overwritings in figures	40		cutive Engineer, PWD.,
	Contractor	No. of overwritings in words	49	Bldgs (C&	M) Divn, Tiruvannamalai - 3.

SI. No.	50 Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
m)	10.00 Nos	20x15 mm dia UPVC Reducer Elbow		Rs.	1 No.	
	(Ten Numbers)				Each	
49		Supplying and fixing in position first quality and approved variety of Gun metal Gate Valve with BIS make of the following dia including cost of shellac, thread balls, etc., complete complying with standard specifications (for both internal and external water supply arrangements). The valves to be used on work shall be got approved by the Executive Engineer before use on work.	97 & 102			
a)	2.00 Nos	32mm dia Gun Metal Gate Valve		Rs.	1 No.	
	(Two Numbers)				Each	
	, , , , , , , , , , , , , , , , , , ,					
b)	3.00 Nos	25mm dia Gun Metal Gate Valve		Rs.	1 No.	
	(Three Numbers)				Each	
	(Three Numbers)					
50	6.00 Nos	Supplying and fixing in position 15mm dia brass CP screw down tap	97 & 102	Rs.	1 No.	
		(heavy duty) of approved make conforming to BIS specifications and quality including cost of shellac, thread, etc., complete complying with			Each	
	(Six Numbers)	standard specification and including cutting and threading wherever necessary. (Taps should be got approved by the Executive Engineer before use on the works)				
51	3.00 Nos	Supplying and fixing in position Indian make bevelled edge mirror of	97 & 102	Rs.	1 No.	
	(Three Number)	approved quality and brand PVC / Fibre Glass framed 600 x 450 x 5.5mm thick mirror, shelf type with hard board backing of approved			Each	
		colour fixed with brass screws, rawl plug, etc., complete complying with standard specification. (The mirror should be got approved by the Executive Engineer before use on woks)	I			
		No. of Corrections in figures				
		No. of Corrections in words				
		No. of overwritings in figures		Exe	cutive Engineer, P\	VD.,
	Contractor	No. of overwritings in words 50		Bldgs (C8	M) Divn, Tiruvanna	amalai - 3.

SI. No.	51 Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Amount in words
52	3.00 Nos	Supplying and fixing approved best quality brass CP towel rail 600mm	97 & 102	Rs.	1 No.
	(Three Number)	long and 20mm dia with brackets of same materials including cost of teak wood plugs and CP screws, etc., complete complying with standard specifications. (The tower rail should be got approved by Executive Engineer before use on works).			Each
53	3.00 Nos	Supplying and fixing best approved best quality brass CP soap tray of size 150 x 100mm including cost of teak wood plugs, brass screws,		Rs.	1 No.
	(Three Number)	etc., complete complying with standard specifications. (The soap tray should be got approved by Executive Engineer before use on works).			Each
54	2.00 Nos	Supplying and fixing in position best quality and approved make Indian	102 & 103	Rs.	1 No.
	(Two Numbers)	made white glazed earthernware wash hand basin of size 550 x 400mm without pedestal with a pair of cast iron brackets, including cost 15mm dia brass CP pillar tap, 32mm dia "B" class GI waste pipe with rubber plug and chain, 15mm dia GM wheel valve, 15mm brass nipple, 15mm dia nylone connection, 32mm dia CP brass waste coupling including fixing of wash basin fitting on to the wall in position with TW plugs and screws, rubber washers, white lead and giving necessary water supply connection and painting the brackets with two coat of painting over a priming coat of anti-corrosive paint including testing for leakages etc., complete complying with standard specification and as directed by the departmental officers. (The wash hand basin and specials should be got approved by the Executive Engineer before use on works).	103		Each
55	1.00 No (One Number)	Supplying and fixing in position best quality porcelin sink of size 600 x 450 x 200mm including cost of 32mm dia CP waste coupling, 32mm dia PVC waste pipe with rubber plug and chain, 15mm dia brass nipple including fixing the sink in position and testing for leakages etc., complete complying with standard specifications excluding CI brackets. [The sink and specials should be got approved by the Executive Engineer before use on works] No. of Corrections in figures		Rs.	1 No. Each
		No. of Corrections in words			
		No. of overwritings in figures			cutive Engineer, PWD.,
	Contractor	No. of overwritings in words 51		Bldgs (C&	M) Divn, Tiruvannamalai - 3.

SI. No.	<sup>52</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
56	1.00 No (One Number)	Supplying and fixing in positon Indian Water Closet (Oriya type) of size 580 x 440mm white glazed earthern ware of approved quality and brand with "P" or "S" trap conforming to BIS with M-Sand cushion and forming flooring alround the closet using 40mm broken brick jelly in lime concrete 1:2:5 (One lime, Two M-Sand and Five brick jelly) 100mm thick and finishing the top to the required slope and including giving necessary connection to PVC pipes (including the cost of 110mm dia PVC pipe for a length of 600mm) by dismantling brick masonry wall / reinforced cement concrete roof / floor slab and making good the dismantled portion to the original condition with leakages etc., complete complying with standard specifications and as directed by the departmental officers. (The water closet should be got approved by the Executive Engineer before use on works).	102 & 103	Rs.	1 No. Each	
57	1.00 No (One Number)	Supplying and fixing in position White glazed European Water Closet of best quality and approved make with 100 mm "P" or "S" trap connecting with PVC pipe of 110mm dia, double flapped rigid PVC black seat and seat cover with CP brass hinges including cost of white cement, cement for packing, spun yarn, teak wood plugs, brass screws, etc., including supplying and fixing 10 litres capacity PVC low level flushing tank fixed on to wall etc., complete with all fittings such as 15mm brass ball valve with polythene float with brass handle, union, coupling connected by means of 40mm white PVC flush hand using Indian adopter joint including all internal fittings such as 15mm brass connections, 15mm GM wheel valve, 15mm brass nipple (2 Nos.), 15mm nylon connection, TW plugs, screws and also giving necessary connection to the PVC pipe including cost of 600mm length of 110mm dia PVC pipe and dismantling the masonry and re-doing the dismantled masonry to original condition etc. complete complying with standard specifications. (The EWC and flushing tank wiht all accessories should be got approved by the Executive Enginer before use on works)		Rs.	1 No Each	
		No. of Corrections in figures No. of Corrections in words				
		No. of overwritings in figures		Exec	cutive Engineer, P	WD.,

SI. No.	<sup>53</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Amount in words
58	4.00 Nos (Four Numbers)	Supplying and fixing position PVC Nahani Trap of size 100x75mm with best PVC gratings of approved brand and quality, fixed over a bed of brick jelly lime concrete 1:2:5 (One part of lime, two part of M-Sand and five part of 40mm gauge brick jelly) and finished with Cement Mortar 1:3 (One Cement, Three M-Sand) including dismantling masonry works wherever found necessary and making good the dismantled portions to the original condition and giving connection to the PVC pipes, etc., complete complying with standard specification. (The Nahani Trap should be got approved by the Executive Engineer before use on works)		Rs.	1 No. Each
59	10.00 RM (Ten Running Metres)	Supplying, laying and jointing glazed stoneware pipes of following dia of approved best quality with spigot and socket ends (in reverse direction) in dry condition and laid in loose joints (i.e.) without cement and spun yarn, so that the waste water can be drained to the trenches already available, excluding cost of earth work excavation, cost of refilling with sand / earth, but including laying the pipe in true alignment and gradient and conducting required water supply test for draining with necessary tools and plants, etc., complete complying with standard specifications. <b>150mm dia</b>		Rs.	1 RM (One Running Metre)
60	1.00 No (One Number)	Supplying and fixing in position 150mm dia stoneware tee of approved best quality and provding leak proof joints with cement, spun yarn, etc., including dismantling the brick work and re-doing the dismantled portion to the original condition, etc., complete complying with standard specifications (The stoneware tee shall be got approved by the Executive Engineer before use on work)		Rs.	1 No. Each
61	1.00 No (One Number)	Supplying and fixing PVC ventilating shaft of 110mm dia (having working pressure 4 kg. / sq.cm) with 3 metre height including cost of PVC cylindrical cowl of best approved quality etc., complete complying with standard specifications and as directed by the departmental officers No. of Corrections in figures No. of Corrections in words	97 & 102	Rs.	1 No. Each
		No. of overwritings in figures		Exec	cutive Engineer, PWD.,
	Contractor	No. of overwritings in words 53			M) Divn, Tiruvannamalai - 3.

SI. No.	<sup>54</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
62		Supplying and fixing in position best quality PVC soil / waste pipes of various dia having 6 kg / sq.cm. pressure BIS mark and providing leak proof joints using PVC adhesives including fixing to the wall with special PVC / MS clamp, teak wood plugs, brass screws, etc., and making connection to all sanitary fittings, dismantling masonry / RCC works wherever found necessary and making the good dismantled portion to the original condition, including testing for any leakages, etc., complete complying with standard specifications. (The PVC pipes should be got approved by the Executive Engineer before use on works). The rate for earth work excavation will be measured and paid separately in the cases where the pipe lines are proposed to laid below ground level	98 & 102			
a)	45.00 RM	110mm dia PVC Soil / Waste Pipe		Rs.	1 RM	
	(Forty Five Running Metres)				(One Running Metre)	
b)	35.00 RM	75mm dia PVC Soil / Waste Pipe		Rs.	1 RM	
	(Thirty Five Running Metres)				(One Running Metre)	
63		Supplying and fixing in position of the following PVC specials best approved quality conforming to ISS and providing leak proof joints with PVC adhesive etc, including fixing to walls with necessary teak wood plugs screws etc. and giving connections to the PVC pipe dismantling the brick masonry RCC floor or roof slab and redoing the disturbed portion to original conditions etc. complete complying with standard specifications. (The PVC specials should be got approved from the Executive Engineer before use on works).	98 & 102			
a)	4.00 Nos (Four Numbers)	110mm dia PVC Elbow		Rs.	1 No. Each	
		No. of Corrections in figures				
		No. of Corrections in words				
		No. of overwritings in figures			utive Engineer, P	WD.,
	Contractor	No. of overwritings in words <sup>54</sup>		Bldgs (C&I	M) Divn, Tiruvann	amalai - 3.

SI. No.	<sup>55</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
b)	4.00 Nos	75mm dia PVC Elbow		Rs.	1 No.	
	(Four Numbers)				Each	
c)	3.00 Nos	110mm dia PVC Elbow with Door		Rs.	1 No.	
	(Three Numbers)				Each	
d)	3.00 Nos	75mm dia PVC Elbow with Door		Rs.	1 No.	
	(Three Numbers)				Each	
e)	3.00 Nos	110mm dia PVC Tee		Rs.	1 No.	
	(Three Numbers)				Each	
f)	3.00 Nos	75mm dia PVC Tee		Rs.	1 No.	
	(Three Numbers)				Each	
64		Supplying and fixing in position PVC cowls of following dia of best approved quality conforming to BIS, etc., complete complying with standard specifications. (The PVC cowl should be got approved by the Executive Engineer before use on works).	98 & 102			
a)	2.00 Nos	110mm dia PVC Cowl		Rs.	1 No.	
	(Two Numbers)				Each	
		No. of Corrections in figures				
		No. of Corrections in words				
		No. of overwritings in figures		Exe	cutive Engineer, PV	VD.,
	Contractor	No. of overwritings in words 55		Bldgs (C&	&M) Divn, Tiruvanna	amalai - 3.

SI. No.	<sup>56</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Amount in words
b)	3.00 Nos	75mm dia PVC Cowl		Rs.	1 No.
	(Three Numbers)				Each
65	4.60 M <sup>3</sup> (Four Point Six Zero Cubic Metres)	Supplying and filling of 40mm ISS metal in dispersion trench around the stoneware pipe or in the leach pit or soak pit to the required thickness as directed by the departmental officers etc. complete. (The rate including cost of metal filling etc., complete complying with standard specification.	SS 5 & 24	Rs.	1 M <sup>3</sup> (One Cubic Metre)
66	5.15 M <sup>3</sup> (Five Point One Five Cubic Metres)	Supplying and filling of 20mm ISS metal in dispersion trench around the stoneware pipe or in the leach pit or soak pit to the required thickness as directed by the departmental officers etc. complete. (The rate including cost of metal filling etc., complete complying with standard specification.	SS 5 & 24	Rs.	1 M <sup>3</sup> (One Cubic Metre)
67	150.00 RM (One Hundred and Fifty Running Metres)	Drilling of 150mm dia vertical bores in hard rock areas to any required depth as directed by the Departmental Officers including Laboour charges for inserting casing pipes assembling in the drilled including welding the joints wherever necessary and grouting the casing pipe, and developing the bore etc., the rate shall inclusive of transportations chaargers for the rig and supporting vehicle from one place to another excluding cost of casing pipe etc., complete as directed by the Executive Engineer.	Spl	Rs.	1 RM (One Running Metre)
68	12.00 RM (Twelve Running Metres)	Supply of 160 mm PVC Special Blue without slotted casing pipe of best approved quality etc complete as directed by the departmental officers. The pipe should got approved by the Executive Engineer before use on works	Spl	Rs.	1 RM (One Running Metre)
	Contractor	No. of Corrections in figures No. of Corrections in words No. of overwritings in figures No. of overwritings in words <sup>56</sup>			cutive Engineer, PWD., M) Divn, Tiruvannamalai - 3.

SI. No.	57 Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Amount in words
69	12.00 RM	Supply of 160 mm PVC Special Blue slotted casing pipe of best	Spl	Rs.	1 RM
	(Twelve Running	approved quality etc complete as directed by the departmental officers. The pipe should got approved by the Executive Engineer before use on			(One Running
	Metres)	works			Metre)
70	1.00 No	Supplying and fixing the P.V.C end cap of 160 mm dia at the end of	Spl	Rs.	1 No.
	(One Number)	P.V.C. Casing pipe etc., complete compying with standard specifications The Bore Cap should be got approved by the Executive Engineer before use on works.			Each
71	1.00 Set	Supplying and fixing 2.00 HP / 3 Phase, 9 Stage sub mergible pump of	Spl	Rs.	1 Set
	(One Set)	approved make and quality with ISI mark with necessary accessories and fixed with delivery pipe errected in the borewell with necessary clamp etc., with following additional accessories			(One Set)
		1 No of 3 Phase Star Delta Starter of 63 AMPS of approved quality			
		and make with ISI mark			
		1 No of 3 Phase 63 AMPS Main Switch of approved quality and make with ISI mark.			
		1 No of priventor of approved quality and make with ISI mark			
		1 No of pannel board of required size with indicator fuse unit			
		voltmeter with necessary provision toaccomodate the starter and mini starter etc.			
		1 No of capacitor with board as per standards of TNEB			
72	120.00 RM	Supplying, Fixing of 1/2" dia Nylon Rope for sub-mergible motor etc.,	Spl	Rs.	1 RM
	(One Hundred and	complete			(One Running
	Twenty Running Metres)				Metre)
		No. of Corrections in figures			
		No. of Corrections in words			
		No. of overwritings in figures		Exe	cutive Engineer, PWD.,
	Contractor	No. of overwritings in words 57		Bldgs (C8	&M) Divn, Tiruvannamalai - 3.

SI. No.	<sup>58</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and Amount in words
73	120.00 RM (One Hundred and Twenty Running Metres)	Supplying, Fixing and connecting of 2x32 sq.mm seathed cable wire for the sub-mergible motor from pannel board to sub- mergible pump.	Spl	Rs.	1 RM (One Running Metre)
74	110.00 RM (One Hundred and Ten Running Metres)	Supplying and fixing 32mm dia HDPE pipe for Sub mergible pump in Bore well (class-5 1 MPa or 10 Kg / cm2 pressure) of best approved quality including welding wherever necessary etc., complete as directed by the Executive Engineer. The pipe should be got approved by the Executive Engineer before use on works.	Spl	Rs.	1 RM (One Running Metre)
75	1.00 No (One Number)	Supplying and fixing in position CI manhole covers with CI frames (Heavy duty) of size 60cm x 60cm of best approved quality as per standard specification etc., complete compying with standard specifications	Spl	Rs.	1 No. Each
76	154.00 M <sup>2</sup> (One Hundred and Fifty Four Square Metres)	Providing pre construction Anti termite treatment for the building including all chemicals as per standard specifications, Labour charges for preparing the areas for treatment spraying chemicals and other incidental charges etc., complete. The rate shall be inclusive of giving anti termite treatment to the building for the following four stages inclusing breaking the termite mounds making holes with crow bars at an interval of 12" to a depth of 8" in the periphery of building and pouring chemicals etc., complete as per ISI 6313-1981 and the termite chemicas used should have 0.5% concentration with 3L solution of the entire operation etc., as directed by the Engineer incharge and including cost of chemicals labour transportation etc., <b>Stage 1</b> : Spraying Anti-termite treatment chemicals solution for the foundation before laying the foundation concrete bottom and sides of the foundation.		Rs.	1 M <sup>2</sup> (One Square Metre)
	Contractor	No. of Corrections in figures No. of Corrections in words No. of overwritings in figures No. of overwritings in words 58			ecutive Engineer, PWD., &M) Divn, Tiruvannamalai - 3.

SI. No.	<sup>59</sup> Appx. Quantity	Description of Work	TNBP No.	Rate in Figures and in words	Unit in Figures and in words	Amount
		<b>Stage 2</b> : Spraying anti termite chemicals solution to the grade beam level spraying has to be done for the grade beams brick masonry in contact with back fill earth.				
		<b>Stage 3</b> : Spraying anti termite chemicals on sand for the flooring before laying the floor concrete. The treatment has to be carried out on the sand filling the basement after levelling operation is over				
		<b>Stage 4</b> : Spraying anti termite chemicals solution around the building outside of the building by making the crow bar holes at an interval of 12" to a depth of 8" around the building before laying the plinth protection. This holes has to be closed after the treatment.				
		SEVENTY SIX (76) ITEMS ONLY			TOTAL	
						(or)

	· · ·	
		(or)
		Total :
		Add GST 12%:
		Add 651 12%
		Grand Total :
	No. of Corrections in figures	
	No. of Corrections in words	
	No. of overwritings in figures	Executive Engineer, PWD.,
ontractor	No. of overwritings in words	Bldgs (C&M) Divn, Tiruvannamalai - 3.

Contractor

## **CONDITIONS OF CONTRACT**

### A PREFACE

Intent and reference to Tamil Nadu Building Practice

1. It is intended by these Tamil Nadu Practice to describe.

- (a) the character of the materials to be used;
- (b) the method of execution of work and

(c) the contractor's responsibilities to the Public, Government and his workmen and general contract conditions which are to be accepted by every contractor who executes work entrusted to him by the Department.

1.2. Wherever the term "Standard Specifications" or "Specifications" or to the abbreviation T.N.B.P. No: or TNBP is us-ed in the specifications or in estimates or contract documents, it shall refer to the relevant, specification in the Tamil Nadu Building Practice.

3. The. Abbreviation "1.S." shall mean "Indian Standard-".

2. Applicability of the Tamil Nadu Building Practice.

2.1. It shall be-unnecessary to include in any contract documents a specification for any item of work which is defined in the tender notice or in the contract schedule of work to be done by a Tamil Nadu Building Practice number (TNBP No.) The fact that the item Is defined as specification, shall mean that the contractor is to execute the work according at such specification modified as may be necessary by an addendum specification for that particular item of work. In the absence of specification for any work or material in the T.N.B.P. such. work should carried out in accordance with the instruction given by the Executive Engineer.

2.2. THESE GENERAL CONDITIONS OF CONTRACT SHALL APPLY TO ALL AGREEMENTS ENTERED INTO BY CONTRACTORS WITH THE PUBLIC WORKS DEPARTMENT OR HIGHWAYS AND RURAL WORKS DEPARTMENT etc AND shall form an inseparable condition of contract, and it shall not be necessary to append a copy of the same to the agreement. 3. Contractor to sign in the Division (or the sub-Divisional) copy of the T.N.B.P.

3.1. Every contractor who executes work for the Public Works Department or the Highways Board and Rural Works Department shall carefully study the schedule for work to be done and his drawings, obligation under the "General Conditions of Contract" which apply to all agreements, and he shall sign in the Divisional Office coy of the T.N.B.P. (or the Sub-Divisional copy if so arranged by the Executive Engineer) as evidence that be understands clearly the conditions of contract governing his agreement and accepts the same.

3.2. It shall not be necessary for the contractors to sign the Divisional Office copy of the T.N.B.P. for every contract awarded to him, but his signature therein will be evidence that the accepts the conditions of contract (which include the standard specifications) as detailed in the T.N.B.P. for every contract into which he enters. It shall also be the contractor's responsibility by frequent perusal of the Divisional Office (or the sub Divisional Office) copy to become conversant with sanctioned alterations or additions made to the T.N.B.P. as soon as they are made. A separate volume of addenda to the T.N.B.P. will be maintained in each Division (or sub division office) as the case may be. in which will be entered all sanctioned corrections and additions. This must also be studied and signed by every contractor before executing an agreement. Interleaving correction slips will not be made for his purpose. The contractor should purchase copy of, the T.N.B.P. for his reference while executing work.

4. Sub-specifications:

4.1 Works of similar nature having many common clauses in their specification are grouped under one specification number with a "General" preface thereto, and the sub-specification are therefore given an alphabetical affix.

5. Additions and alterations to the T.N.B.P.

5.1. Additions and alterations to the T.N.B.P. will be incorporated in the addenda volume as authorised by the Chief Engineer.

6. Powers of Superintending Engineers and Executive Engineers to supplement or alter the T.N.B.P.

6.1 Superintending Engineer & Executive Engineer may alter the specification for any particular which is within their respective powers of sanction, when such alteration is found necessary by attachment of a correction sheet to the contract form, bearing the T.N.B.P. number, the corrections and the signature of the Superintending Engineer or the Executive Engineer as the case may be, together with the signature of the contractor. Similarly additional specifications, for items for which there are no standard specifications will be made by attachment to the contract documents of addendum specifications sheet bearing the signature of the Superintending or the Executive Engineer as the case may be and the signature of the contractor.

## A.I. DEFINITIONS AND INTERPRRETATIONS.

#### 7. Definition of terms:

7.1. Wherever the words and expression defined in this clause or pronouns used in their status occur in contract documents which includes the T.N.B.P, they shall hays the meanings hereby assigned to them except where the context otherwise requires:

(a) "Executive Engineer" means the Executive Engineer for the time being in charge of the concerned work under execution or such other departmental assistants or subordinates to whom the Executive Engineer may have delegated certain duties, acting severally within the scope of the particular duty entrusted to them.

(b) No delegation by Executive Engineer which affects agreements. It is however, to be distinctly understood that the Executive Engineer or the Superintending Engineer or the higher authority who is vested with the powers of acceptance of the particular agreement under reference will make no delegation of powers to such assistants or subordinates which in any affects the agreement and its contract condition when such agreement is to be or has been accepted by the "Executive Engineer" or by the other higher authority respectively- The duties of such assistants or subordinates will be solely duties of supervision to ensure compliance with contract conditions.

(c) "Contractor" means the particulars persons, firm or corporation with whom an agreement has been made by the Executive Engineer or higher authority as the case be, for executing work defined in the concerned agreement, and for purposes of instructions regarding compliance with contract conditions, it shall include the contractor's authorized agent, who is maintained on the work by the contractor. (d) Works or work means the works by or by virtue of-the contractor contracted to the executed whether temporary or permanent and whether original, altered substituted or carriage or additional or connected, with the supply repairs or carriage of tools and plant and supply or manufacture of other stores.'

7.2. Words importing the singular only also include the plural and vice-versa where the context requires.

**NOTE:-** The farms sub-divisional officer. Assistant Executive Engineer, Executive Engineer, Superintending Engineer and Chief Engineer, used in the following clauses shall, where the context so requires, be construed as also including officers of the corresponding grade in the Highways and Rural Works Department.

**8. Evidence of experience** - Tenderer shall, if required, present satisfactory evidence to the Executive Engineer that they have been regularly engaged in constructing such works, as the proposed to execute and that they are fully prepared with the necessary capital, machinery and materials I:o begin the work promptly and to conduct it as required by the T.N.B.P. and the other specifications for the particular work If tendered for, in the event of their tender being accepted,

#### 9. Legal address Notices:

9.1. Tenderers should given in their tender their place of residence and postal address. The delivering at the above named place or posting in a post box regularly maintained by the Post Office Department or sending by loiter registered for acknowledgement of any notice, letter or other communication to the contractor shall be deemed sufficient service thereof upon the contractor ip writing as maybe changed at any time by an instrument executed by the contractor, and delivered to the Executive Engineer.

9.2. Nothing contained in the agreement and his contract conditions shall be deemed 10 predudecir render inoperative the service of any notice, letter or other communications upon the contractor personally.

## B. STATEMENT OF APPROXIMATE QUANTITIES IN SCHEDULE - A

10.1 The quantities mentioned in tender notices and in agreement schedule A are worked out from the relevant drawings in office and may or may not be the actual required for execution. The Executive Engineer does not expressly or by implication agree that the actual amount of work to be done will correspond therewith but reserves the right to increase or decrease the quantity of any class or portion of the work as he deems necessary.

10.2. Tenderers must satisfy themselves by a personal examination of the site of the proposed work by examination of the plans and specifications and by other means as they prefer as to the accuracy and sufficiency of the statement of quantities and all conditions affecting the work and shall not any time after the submission of their tender, dispute or complain o1 such statement of quantities or assert, that there was any misunderstanding in regard to the nature or amount of the work to be done nor in consequency apply for extension of time for completion beyond the agreement date.

## 11. Approximate not to mean deviation from drawings and specifications:

11.1. This declaration of the approximate nature of the statement of quantities in Schedule. A does not, however, in any way imply that the quantities will be increased for departure by the contractor from strict compliance with sanctioned drawings and specifications to suit his own convenience or reduce his costs.

## 12. To compare tenders:-

12.1. The quantities in Schedule A are given for a uniform comparison of lump-sum tenders.

### C. DRAWINGS AND SPECIFICATIONS

### 13. Purpose:

13.1. The contract drawings if any, read together with the contract specifications are intended to show and explain the manner of executing the work and to indicate the type and class of materials to be used.

### 14. Conformance:

14.1. The works shall be carried out in accordance with the drawings and specifications which form part of the contract and in accordance with the details and instructions, supplementing or explaining the same as may from time to time be given by the Executive Engineer.

14.2. If the work shown on any such further drawings or details, or other work necessary to comply with any such instructions, directions or explanations be in the opinion of the contractor, of a nature which the schedule rate in the contract does not legitimately cover he shall before proceeding with such work, give notice in writing to this effect to the Executive Engineer. In the event of the Executive Engineer and contractor failing to agree as to whether or not there is any excess rate to be fixed and the Executive Engineer deciding that the contractor is to carry out the said work, the contractor shall accordingly do so, and the question whether or not there is any excess and if so the amount there of, shall failing agreement, be settled by an arbitrator as provided in the arbitration clause, unless the subject is one which is left to the sole discretion of the Executive Engineer under the clauses of these conditions of contract and the contractor shall be paid accordingly.

14.3. It shall be the responsibility of the contractor to give timely notice to the Executive Engineer regarding anything shown on the drawings and not mentioned in the specification, or mentioned-in the specifications and not shown in the drawings or any error or discrepancy" drawings or specifications and obtain his orders thereon. Figure dimensions are to be taken and not those obtained from scaling the drawings. In any discrepancy between drawings and specifications, the latter shall prevail. In any such cases or in case any feature of the work is not fully described and set forth with the drawings and specifications the contractor shall forthwith apply to the Executive Engineer for such further instructions, drawings or specifications as he requires it, being understood that the subject to be dealt with under the building procedure of best modern practice. The Executive Engineer will furnish the further instructions, drawings or specifications if in his opinion, they are required by competent workmen, for the proper execution of the work.

# 15. Variations by way of modifications omission or additions.

15.1. For all modifications, omissions from or additions to the drawings and specifications, the Executive Engineer will issue revised plans, or written instructions or both, and no modifications, omissions of additions shall be made unless or authorized and directed by the Executive Engineer in writing. 15.2. The. Executive Engineer shall have the privilege of ordering modifications, omissions or additions at any time before the completion of the work and such orders shall not operate to annual these portions of the specifications with which said changes do not conflict.

15.3. The contractor shall submit to the Executive Engineer a statement giving details of the claims for any additional work with 30 days of the order of the work and no claim for any such work will be considered which has not been included in the statement.

## 16. Copies of drawings and specifications:

16.1. One copy of the available drawings and specifications (apart from the T.N.B.P. a copy of reference) shall be furnished free of cost to the contractor for his own use. Such copies and copies of supplementary details furnished by the Executive Engineer-shall be kept by the contractor on the work until the completion thereof, and the Executive Engineer shall at all times have access to them.

# 17. Signed drawings - No authority to the contractor.

17.1. No signed drawing shall be taken as in itself and order for variation, unless either is it entered in the agreement schedule of drawings under proper attestation of the contractor and the Executive Engineer, or unless it has been sent to the contractor by the Executive Engineer, with a covering letter confirming that the drawing is an authority for variation of the contract under reference.

## D. MATERIALS AND WORKMANSHIP

## 18. To be the best quality:

18.1. All materials, articles and workmanship shall be the best of their respective kind for the class of work described in the contract specification and schedule, materials being obtained from sources approved by the Executive Engineer. The word" best" as used in these specifications shall mean, that in the opinion of the Executive Engineer there is no other superior quality of materials or finish of articles on the market and that there is no better class of workmanship available for the nature of the particular item descried in the contract schedule. The contractor shall, upon the request of the Executive Engineer, furnish him with the vouchers to prove that the materials are such as are specified. 18.2. Samples of materials shall be furnished at the contractor's expenses to the Executive Engineer when called for in the tender notice or ordered to be furnished by the Executive Engineer prior to execution of any work.

## **19.** Conventions for proportions:

19.1. Wherever the proportions are written by figures without further description and where the meaning is otherwise clear as to which figure is intended to apply to each material, then the usual conventions will be understood to apply to each material then the usual conventions will be understood to apply.

## For example :

1.2. Means I lime (or cement in accordance with the context) and 2 sand;

1.2.4. Means 1 lime (or cement in accordance with the context) 2 sand and 4 broken stone (or other aggregate in accordance with the context).

## 20. Measurement and mixing:

20.1. In the case of loose materials such as lime sand, cement, broken stone, surki, mortar, etc the proportions demanded by the specifications must be measured in properly constructed measuring boxes or weighed or in such other manner as shall be instructed by the Executive Engineer. Measurement is not to be done in loose heaps when intimate mixtures such as mortar, concrete, etc., are to be formed. The mixing must always be done on closely constructed platforms. So that there wilt be no leakage of '-any of the materials through the floor of the platform and also that no foreign materials can be incorporated during the mixing. These platforms must be approved by the Executive Engineer. The cost of such measuring boxes and platforms and all the work referred to herein shall be borne by the contractor.

## 21. Data:

21.1. The materials and labour utilised in the execution of work by the contractor shall not be loss than that given in the Tamil Nadu P.W.D. Standard Data for the relevant item.

**NOTE:** In case the contractor considers that the materials and labour provided in the T.N.P.W.D. standard data for the execution of particular items of work are in excess, the contractor may furnish detailed data for such items along with tender with reason for variations from P.W.D. Standard Data.

### 22. Layout of materials stocks:

22.1. The contractor shall deposit materials for the purpose of the work on such parts only on the ground as may be approved by the Executive Engineer. He shall submit for the approval of the Executive Engineer before starting work, c: detailed site survey clearly indicating positions and areas where materials shall be stacked and sheds built.

#### 23. Source of purchase of materials and stores

23.1. The Executive Engineer shall, during the progress of the work, have power to cause the contractor to purchase and use such materials or supplies from Government brick fields, stores or other sources as may be specified in the contract for the purposes therein specified.

# 24. Contractor liable for materials supplied by Government.

24.1. The contractor shall be responsible for all materials and other articles and things which may be supplied by Government from the time he takes deliver'.' thereof, and shall use them only for the purposes of this contract and shall make good any loss, damage, wastage or undue wear and tear that .may take place from whatever cause and pay to Government for such loss, damage, wastage or undue wear and tear such sum as the Executive Engineer may determine.

24.2. If at any time subsequent to the execution of the agreement Government materials other than those specified in the Agreement arc to be supplied to the contractor for use on the work they will be charged at the market value prevailing at the time of supply or stock issue rate which ever is greater. The contractor will be informed in writing the rate which he demands for finished work in view of the fact that he is to use Government materials.

### 24.4. Storage charges:

24.4. Govt. do not under take to lake over from contractors whether before or after the completion or determination of contract surplus materials which were originally procured by the contractors themselves of were issued to them and charged to their accounts. Such materials are the property of the contractor and can be taken over by Govt. if required fur use on the works in progress only by special arrangement at the prevailing market rates viz., the rate at which the article or articles of a similar description can be procured at a given time at the stores Godown J from public market suitable to the division for obtaining a supply therefore of the materials were originally supplied by the Govt. Price allowed to the contractors on requisition should not exceed the amount charged to the contractors excluding the element of storage charges if any. Contractors are however not at liberty to remove from the site of work, without the written permission of the Divisional Officer, materials, which have been issued to them for use on works.

## 25. Test inspection and rejection of defective materials and works:-

25.1. The contractor shall provide proper facilities at all for the testing of materials and inspection of the work by the Executive Engineer, and the Executive Engineer shall accordingly also have access at all times to the palaces of storage or manufacture where materials are being made for use. under the contract to determine that manufacture is proceeding in accordance with the drawings and specifications.

25.2. The contractor shall, upon demand, also forward for the Executive Engineer's inspection, test certificate supplied by the vendors, when he is purchasing consignments of cement, steel and other materials in respect of which such certificates are usually available.

25.3. The Executive Engineer shall have power to reject at any stage, any work which. he considers to be defective in quality of material or workmanship and he shall not be debarred from rejecting rough materials by reasons of his having previously passed them in an un worked condition. Any portion of the work or materials rejected or pronounced to ho inferior or not in accordance with the drawings and specifications, shall be taken down and removed from the work site at the contractor's expense, within 24 hours after written instructions to that effect have been given by the Executive Engineer. Replacement shall at once be made in accordance with the specifications and drawings at the contractor's expense.

25.4. In case of default on the part of the contractor to carry out such orders the Executive Engineer shall have power to employ and pay. other persons to carry out the orders at the contractor's risk and all expenses consequent thereon and incidental thereto shall be borne by the contractor.

25.5. In lieu of rejecting work not done in accordance with the contract, the Executive Engineer may allow such work to remain and in that case shall make such allowance for the difference in value, as in his opinion may be reasonable.

25.6. Works opened for inspection The Contractor shall at the request of the Executive Engineer within such time as the Executive Engineer shall name open for inspection any work covered up; and should the contractor refuse or neglect to comply with such a request, the Executive Engineer may employ other workmen to open up the same. If the said work has been covered up in contravention of the Executive Engineer's instructions or if on being opened up, it be found not in accordance will drawing and specifications of the written instructions of the Executive Engineer the expenses of opening it and covering it up again, whether done by the contract or such other workmen, shall be borne by. or recovered from the contractors. If the work has not been covered up in contravention of such instructions or if on being opened up it be found i.e. he in accordance with the drawings and specifications or the written instructions of the Executive Engineer, the expenses aforesaid shall be borne by Government and shall be added to the contract sum. provided always that in the case of foundations, or any other urgent works so opened up and requiring immediate attention the Executive Engineer shall, within reasonable time after the receipt of a notice from the contractor that the work has been opened, make or cause the inspection there of to be made, and at the expiration of such time if such inspection shall not have been made, the contractor may cover up the same, and shall not be required to open it up again inspection except at the expense of Government.

### 26. Defects, shrinkages, etc., after completion.

26.1. Any defects, shrinkage or other faults which may appear within from the completion of the works arising in the opinion of the Executive Engineer from faulty materials or workmanship not in accordance with the drawings and specification instructions of the Executive Engineer shall open the directions in writing of the Executive Engineer and within such reasonable time as shall be specified therein, be amended and made good by the contractor at his own cost unless the Executive Engineer shall decide that the contractor ought to be paid for the same at the rates agreed on such reduced or other rates as the executive Engineer may fix and incase of default, the Executive Engineer may employ (and pay other persons to amend and make good such defects, shrinkage or other faults or damage. and all expenses consequent thereon and incidental thereto shall be borne by the contractor.

26.1. (A) The shrinkage period of six months referred to in main clause 26.1. above will be five years in respect of all contracts for construction of original buildings either semi-permanent or permanent to ensure structural stability of the building.

## (G.O.Ms. NO.1 81 PWU 28.1.86)

26.2. Provided that in the event of Government taking over portions of the works as and when they are completed the liability of the contractor under this clause shall extend to a period of year's from the date of final taking over of the work irrespective of the actual dates on which portions the works were taken over,

## 27. Executive Engineer's decision:

27.1. To prevent disputes and litigation, it shall be accepted as an inseparable part of the contract that in matters regarding materials workmanship, removal of improper work, interpretation of the contract drawings and contract specifications, mode of procedure and the carrying out of the work, the decision of the Executive Engineer shall be final and binding on the contractor and in any technical question which they arise touching the contract the Executive Engineer's decision shall be final and conclusive.

### 28. Dismissal of Workmen:

28.1. The contractor shall employ in and about execution of the works only such persons as are careful, skilled and experience in their several trades and callings and the Executive Engineer shall be at liberty to object to and request the contractor to remove from the works any person employed by the contractor in or about the execution of the works '.'.'ho in the opinion of the Executive Engineer misconducts himself or incompetent or negligent in the proper performance of his duties and such persons shell! not be again employed upon the works without the permission of the Executive Engineer.

#### **D.1. GENERAL OBLIBATIONS**

#### 32. CARRIAGE.

# 29. Contractor's maistri or agent and contractor's staff:

29. 1. The contractor shall in his own absence keep constantly on the works a competent maistry or agent and any directions or explanations given by the Executive Engineer or his representatives to suet". maistry or agent shall be held to have been given to the contractor.

29.2. The contractor shall further provide all staff which necessary for the proper supervision, execution and measurement of the work to ensure full compliance with the term of the contract.

#### 30. Government maistries or agents:

30.1. The Government may be represented on the work by an agent clerk of the works, or maistry who is not borne on the Official or officers and subordinates o? the P.W.D, or Highways and Rural Works Department. He (if appointed) shall, in the absence of the Executive Engineer, furnish the contractor with the Executive Engineer's or his representative's instructions of the works and the contractor shall duly comply with such instructions and directions and shall on the written requisition of the maistri Clerk of works or agent, stay the-further progress of any portion of the works which in his judgment is being constructed with unsound or improper matstry or workmanship, until the opinion and determination of the Executive Engineer shall be obtained thereon, but such maistry, clerk of works or agent is to have no power whether to order any extra works or deviation from the specification and drawings.

#### E. INCLUDED IN CONTRACT RATES

## **31. Defining contract schedule rates:**

31.1. The rate entered in a contract schedule for any class of work shall be for finished work in site and shall include all contingent expenses whether direct construction expense involved in the building in place in accordance with the drawings and specifications or whether they be expenses imposed by an outside authority such as a local body. Such contingent expenses snail not entitle the contractor to claim an extra in respect thereof. All rates quoted in the shall inclusive of all duties, taxes, royalties, fees, tolls, insurance, other levies if any except Goods and Service Tax (GST) payable by the contractor under the contract or for any other cause shall be included in the rates submitted by the tenderer 32.1. Rate's for finished work shall always include the cost of conveyance and all leads, lifts, loading, unloading and stacking in the manner and at the place ordered by the officer in immediate charge of the work, unless circumstances necessitate provisions for a separate schedule item, in which class such will be specified in the tender notice or schedule.

32.2. Wherever the term "Carriage" or "Conveyance" is used in a schedule item, it shall in the absence of other schedule provisions or modifying description, in the specification, be taken to include all leads, lifts, loading, unloading and stacking in uniform stocks to the satisfaction of the Executive Engineer with careful attention to close packing in casa of materials which are to be measured in stacks as a basis of payment for finished work.

**NOTE- 1.** In the case of important leads and lifts as may occur in river conservancy and other such works, where lifts over flood banks and long leads may be involved, it is usual to make separate schedule item provision with a specification defining the exact work to be done for each tendered rate.

**NOTE - 2.** Payment for carriage will originally be by bulk or weight at a rate between specified places and on the basis of the method adopted in the standard schedule of rates for carriage of materials. The distances will be measured by the nearest practicable arid cheapest routes, whether metalled or unmetalled road or cart track.

32.3 when carts or vehicles of any sort are engaged by the day, the quantity of materials to be conveyed, the distance to be travelled and the number of trips to be made shall, if he considers necessary be fixed by the Executive Engineer.

32.4. The contractor is responsible for making good all loss in transporting materials entrusted to him or his agents, whether caused by wastage, breakage, theft or any other cause.

32.5. No payment shall in any case be made or the return trips with carts. Where' there are loads also for the return trips the agreement rates should allow for the reduced cost thereby on each set of materials so conveyed,

## 33. Construction plant.

33.1. The contractor shall include in. his tendered price and shall provide and install all necessary construction plant and shall use such methods' and appliances for the performances the operations connected with the work embraced under the contract as will secure a satisfactory quality of work and rate: of progress which, in the opinion of the Executive Engineer will ensure the completion of the work within the time specified. If at any time before the commencement, during the progress of the work or any part of it such methods or appliances appear to the Executive Engineer to be in sufficient or inappropriate for securing the quality of the work required or the said rates of progress. he may order the contractors to increase their efficiency or to improve their character, land the contractor shall comply with such orders, but the failure of the Executive Engineer to demand such increase of efficiency of improvement shall not relieve the contractor from his obligation to secure the quality of work and the rate of progress required by the contract and the contractor alone shall be responsible for the efficiency and safety of his plant, appliances and methods.

33.2. It is however open to the Executive Engineer to lend or supply to the contractor any tools, implement materials and machinery that the Executive Engineer may consider desirable but for any such tools, implements materials and machinery that: may be lent or supplied to contractor by Government the contractor shall may be so lent or hired to the contractor shall be the Executive Engineer before the final bill or work is paid and any shortage or damage shall be such rate as may be determined by the Executive Engineer after making such allowance as he may consider suitable for fair wear and tear.

## 34. Scaffolding instructions:

34.1. All requisite scaffolding shall be provided at the contractor's expense and shall be double, i.e. it must have two sets of upright supports care must be taken to ensure the safety of the work people and the contractor must comply with such instructions as the Executive Engineer may issue to ensure safety. The contractor will be entirely responsible for any damage or injuries to persons or property resulting from ill erected scaffolding, defective ladders, or otherwise arising out of his default in this respect. The contractor's attention is also invited to the "safety code".

### 35. Temporary structure:

35.1. The contractor shall erect and maintain at his own cost temporary weather proof sheds at such places and in a manner approved by the Executive Engineer for keeping materials under cover. The contractor shall also provide and maintain a his own expenses such temporary fences, guards, bridges and roads as may be necessary for the execution of his contract work or for safeguarding or accommodating the public if the executive Engineer shall order any departure he shall comply with such orders as the Executive Engineer may issue to safeguard or accommodate the public, sheds for housing workmen shall be provided at the contractor's expenses if, in the opinion of the Executive Engineer, such are necessary or desirable.

## 36. Water and lighting

36.1. The contractor shall pay all fees and provide water and light as required from municipal mains or other sources and shall pay all charges therefore (including storage tanks, meters, etc.) for the use of the work and workmen unless otherwise arranged and decided on, in writing with the Executive Engineer. The water for the works shall be, so far as practicable, free from earthy vegetable, or organic matter and from salts or other substances likely to interfere 'with the setting mortar otherwise prove harmful to the work

If the Contractor reports the Executive Engineer in writing about the non availability of suitable water required for the work in and around, the work site at the time of tender itself, the Executive Engineer shall make necessary arrangements for adequate suitable water free from vegetable or organic matter and from salts or other substances likely to interfere with the setting of mortar otherwise prove harmful to the construction work except the items covered in standardized concrete mix of work after verifying the genuineness of contractors obligation.

The expenditure if any due to the above shall be met out from the lumpsum provisions made in the sanctioned estimate towards the unforeseen items (or) contingencies, subject to the condition that the administratively sanctioned amount should not exceed at any cost.

### 37. Sun protection keeping dry and pumping

37.1. The contractor shall at his own expense arrange all requisite protection of the work and materials against sun or rain effects and shall keep all portion of the work free from water to the satisfaction of the Executive Engineer and shall use his own plant for the purpose unless otherwise specifically provided in the contract specification.

#### 38 Tools and Seigniorage:

38.1 The contractor shall, unless otherwise specifically stated in the tender notice and subsequently on this basis in the contract be responsible for the payment wherever payable of all import duties, tools octroi duties, seigniorages, quarry fees, etc., on all materials and articles that he may use.

38.2. The contractor shall be solely responsible for the payment of GST as in force for time being and the rates for the various items of the work shall remain unaffected by any change that may be made from time to time in the rate at such tax is payable.

The Government of India has notified vide notification No.20/2017 and notification no.24/2017 the consessional rate of GST at 12% (CGST 6% + SGST 6%) is leviable for any Government Contract wheather Civil or Electrical irrespective of the GST rate applicable on purchase of goods used in the execution of Government contract works. The GST amount will be calculated at 12% of sum of tender value (excluding GST) entered by the tenderer for the construction cost specified in BOQ subject to GST rate applicable as amended from time to time.

As per notification 202 section 7 sub section 2 of the Tamilnadu Goods and Services act 2017 (Tamilnadu act 19/2017) activities or transaction under taken by State Government shall be treated neither as supply of goods nor supply of services.

As per Public Works Department Schedule of Rates under general note 8(ix), the contractor is eligible to get refund of excess tax paid or liable to pay tax for this contract.

As per chatpter IX (Section 41) of Tamil nadu Goods and Services act 2017 every registered person may be entitled to the credit of eligible input tax, as self assessed, in his return and such amount shall be credited on provisional basis to his electronic credit ledger and the contractor need to pay the GST amount towards his GST Registration No.

The TDS at the rate of one percent for SGST and another one percent for CGST shell be deducted in each bill. 38.3. Not withstanding anything contained in section 10 of the Indian Traffic Act of 1894. the rates for items involving, the use or supply of articles obtained by the contractor from outside India shall remain unaffected by any changes that may be introduced in Customs duties.

**NOTE:** For works carried out on behalf of the Government of India, Seignorage fees. etc., referred to in this clause will have to be levied in every case

38.4. No seigniorage shall be charged where due for materials quarried, from the P.W.D. or other Government quarries. Assistance as necessary will be given to the contractor by the department to obtain access to quarries approved by the Executive Engineer. No plot rent shall be charged for materials stacked on the Government land during the course of construction provided all such materials are removed within one month after the work is completed.

38.5. Seigniorage charges due for use of private quarries and private land shall be paid by the contractor.

38.6.The contractor shall from his own approach road to the work site for which no extra will be due to him. On completion the contractor shall not be permitted to remove the materials laid for formation of road. If the contractor is allowed to use the existing' roads he shall maintain them in good condition at his own cost through out the period of the contract.

### 39. Setting out works:

39.1. The contractor shall be responsible f or the true and proper setting out of orks and for the correctness of the position, levels, dimension and alignment of all parts of the works and for the provision of all materials, staff and labour in connection therewith.

## 40. Cleaning up during progress and delivery:

40.1. All rubbish shall be burnt or removed from the site, as it accumulates. All floors, stairs, landing windows, surface and soil drains shall be cleaned down and put in a thoroughly complete clean, sound and workman like state to the satisfaction of the Executive Engineer having first been removed by the contractor. The contractor shall give notice in writing to the Executive Engineer before the work is finally handed overall rubbish and surplus materials not required by the Executive Engineer having first been removed by the contractor. The contractor shall give notice in writing to the Executive Engineer when the work is so ready to be handed over and shall be responsible for its maintenance until it is taken over by the Executive Engineer.

## F. RESPONSIBILITIES AND LIABILITIES OF THE CONTRACTORS.

## 41. Observance of laws, focal regulations and notices. Attachments:

41.1. The contractors shall conform to the regulations and by-laws of any local authority and or of any water or lighting companies with those systems the structure is proposed to be connected and shall, before making any variations from the drawings or specification that may be necessitated by so conforming, given to the Executive Engineer written notice, specifying the variations proposed to be made and the reasons for making them, and apply for instructions thereon. In case the contractor shall not receive such instruction within seven days. he shall proceed with the work conforming to the provisions regulating or by-law in question and any variations in the drawings or specification so necessitated shall be dealt with under clause.

41.2. The contractor shall give all notices required by the said Act, regulation or by-laws and pay all fees in connection therewith unless otherwise arranged and decided on in writing with the Executive Engineer. He shall also ensure that no attachments are made against materials of work forming part of or for the use of the contract. In every case referred to in this clause the contractor shall protect and indemnify Government against any claim or liability arising from or based on the violation, of any such law ordinance, regulations order, degree, a attachment whether by himself or by his employees.

## 42. Accidents - Hoarding - Lighting observation - Watchmen:

42.1. When excavation have been made or obstacles have been put in public thorough fare or in places where there is any likelihood d accidents, the contractor shall comply with any requirement of law or the subject and shall provide suitable hoarding and watchmen a! necessary.

42.2. It shall be the contractor's sole responsibility to protect the public and hi! employees against accident from any cause and he shall indemnity Government against and claims for 'damages for injury to person a property, resulting from any such a claim and shall where the provisions of the Workmen's Compensation Act apply, take step to properly insure against any claims there under.

42.3. On the occurrence of accident which results in the death of any of the workmen employed by the contractor or which is so seriousness as to he likely to result in the death of any such workmen, the contractor shall, within 24 hours of the happening of such accident, intimate in writing to the concerned section officer of the Department the fact of such accident. The contractor shall indemnify Government against al loss or damage sustained by Government resulting, directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties of fines if any payable by Government as a consequency of Government's failure to give notice under the Workmen's Compensation Act or otherwise conform to the provisions of the said Act in regard to such accident.

42.4. In the event of an accident in respect of which compensation may become payable under the Workmen's Compensation Act VIII of 1923 whether by the contractor or by the Government as principal it shall be lawful for the Executive Engineer to retain out of money due and payable to tile Contractor such sum or sums of money as may, in the opinion of The Executive Engineer shall be final in regard to all matters arising under, this clause.

42.5. The contractor shall indemnify Government from and against all claims and proceedings for or on account of infringement of any patent rights, design, trade mark, or name of other protected rights in respect of any constructional plant, machine work or material used for or in connection with the works or temporary works, or any of them and from and against all claims, demands, proceedings, damages, cost, charges and expenses whatsoever in respect thereof in relation thereto.

42.6. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to complied with all the rules framed by the Government from time to time for the provision of health and sanitary arrangements to workers employed by P.W.D. and Highways and Rural Works Department and their contractors Vide Appendix. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid the Executive Engineer shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor. 42.7. In respect of all labour directly or indirectly employed .in the works for the performance of the contractor's part of this agreement, the contractor at his own expense shall arrange for the safety provisions as per "Safety Code" framed from time to time and shall at his own expense provide for al facilities in connection therewith. In case the con tractor fails to make arrangements and provide facilities as aforesaid and recover the costs included ir that behalf from the contractor.

42.8. In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement the contractor shall arrange to furnish in triplicate particulars to each working the proforma Vide Appendix XXXVIII b) the end of every month to the Executive Engineer charge of the work.

### 43. Blasting:

43.1. Blasting executed by contractors in connection with Government works shall be carried out in the manner described under "Blasting operations Instructions to Contractor of the TNBP.

44. The contractor is to protect the whole of the adjoining and where necessary, the existing premises and all works land alt fittings to alt buildings or and adjoining the site against the structural and decorative damages caused by the execution 0' these works and make good in all respects all such damage done or occurring to the same, and leave such reinstatement in perfect order. He is also to make good any damage done to private footways or roadways.

# 45. Permit other Workmen Co-operation Afford facilities:

45.1. The Executive Engineer shall have full power to sent workmen upon the premises to execute fittings and other works not included in the contact for whose operations the contractor is to afford every reasonable facility during ordinary working hours, provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contact, but the contractor is not to be responsible for any damage which may happen to or be occasioned by any such fittings or other works, provided he complies with the Executive Engineer's instructions in connection there with, and provided that the damage is not caused by himself or his workmen. 45.2. The contractor shall, at all times, cooperate, assist, attention, and afford facilities for such specialists as may be employed by the Executive Engineer on other works in connection with the building, allowing them free of charge the use of all plant, light and water installed in the works. The contractor shall cause such special work or protect it as instructed to avoid injury during progress of the works. For failure so to protect, the contractor must make good any damage caused.

45.3. When two or more contractors arc engaged on installation or construction work in the same vicinity, the Executive Engineer shall have authority to direct the manner in which each shall conduct the work so far as it affects other contractors. :

# 46. Holes for water services, gas, electrical and sanitary fittings:

46.1. The contractor shall leave all holes in masonry and floors for the insertion of water services, gas and electrical connections and sanitary fittings in the exact positions indicated by the Executive Engineer during the progress of the work. These holes must be properly built up in a workmen like manner at the contractor's cost, as soon as the fittings have been installed in cases, where the installations as made during the construction of the buildings and where in the opinion of the Executive Engineer, delays in settlement of accounts will not thereby occur.

## 47. Contractor's risk and insurance:

47.1. The work executed by the contractor under the contract shall be maintained at the contractor's risk until the work is taken over by the Executive Engineer. The Govt. should not be liable to pay for any. loss or damages occasioned by (or) arising out of fire, flood, volcanic eruptions, earth quake or other convulsion of nature and all other natural calamities, risks arising out of acts of God during such period and that the option whether to take Insurance coverage or not to cover risks, is left to the contractor.

47.2. Provided however, that the contractor, shall not be liable for all or any loss or damages occasioned by or arising out of acts of foreign enemies imuasions hostilities or warlike operations (before or after declaration of war) rebellion military or usurped power.

#### 48. Holidays:

48.1, Subject to any provision to the contrary contained in the contract none of the permanent work shall save as herein after provided be carried on during the night or on Sundays and other holidays without the permission in writing of the Executive Engineer or of the officer in charge of the work: save when the work is un avoidable or absolutely necessary for the save of life or property or for the safety of the works in which case the contractor shall immediately advice the Executive Engineer.

### G. MISCELLANEOUS

#### 49. Sand and gravel:

49.1. The contractor shall not make any excavations upon the site for the purpose of obtaining gravel, sand or soil other than that shown or implied by the drawings, except with the previous permission of the Executive Engineer.

### 50. Old curiosities:

50.1. All old curiosities, relics, coins, minerals, etc., found in excavating or pulling down, shall be the property of the Government and. be handed over to the Executive Engineer. Should any ancient masonry, or other old work of interest be opened up, the Executive Engineer's attention shall be called to the same before demolition or removal.

#### 51. Assignment or sub - lettings:

51.1. The contractor shall not without the written consent of the Executive Engineer, assign the contract nor sub-let any portion of the same. Ordinarily no subletting will be permitted, but in case such should be permitted by the Executive Engineer, it shall in no way free the contractor from any of his responsibilities under any clause of these "Conditions of Contract" or of the "Articles of agreement"

#### 52. Specialties:

52.1. The Executive Engineer, shall, during the progress of the work have powers to select, -nominate or recommend tradesmen or specialists to supply material or execute such portion of the work as he may consider desirable in the interests of the Government.

53. Ratification of the orders of the Executive Engineer

53.1. Should the acceptance of the tenders be beyond the authorised powers of the Executive Engineer as laid down in the P.W.D. code, the orders and decisions of such Executive Engineer with regard to the employment of specialists for certain portion of the work as described in the previous clause will be subject to the ratification of the higher authority who accept the tender.

#### Powers for sanction of Extension of time:

53.1 .A. Should the acceptance of tender beyond the authorised powers of the Executive Engineer as laid down in TN P.W.D. code, the orders or decisions of such Executive Engineers with regard to the extension of time for completing the contract will be subject to the ratification of superintending Engineers for all works for which tenders were accepted by the Superintending Engineer/Chief Engineer/Board of Engineers/Govt.

### Powers for termination of LS contract.

53.1 .B. Should the acceptance of tender beyond the authorised powers of the Executive Engineers laid down in TN P.W.D. code, the orders and decision of such Executive Engineers with regard to the termination of contract will be subject to ratification of the Chief Engineer for all works for which tenders were accepted by Superintending Engineer / Chief Engineer/Board of Engineer/Govt.

### 54. Order Book.

54.1. An order book shall be kept at the P.W.D. office on the site. of the work. As far as possible, all orders regarding the work are to be entered in this book. All entries shall be signed and dated by the P.W.D. officer in direct charge of the work and by the contractor or by his representative. In important cases, the Executive Engineer or the Superintending Engineer will countersign the entries, which have been made. The order book shall not be removed from the work except with the written permission of the Executive Engineer.

54.2. No photographs' of the site or of the work of any part thereof shall be taken except with the permission in writing of the Executive Engineer and no such photographs shall be published or otherwise circulated without the permission, of the Chief Engineer.

#### H. DATE OF COMMENCEMENT, COMPLETION, DELAYS, EXTENSION, SUSPENSION OF WORK AND FORFEITURE.

### 55. Date of Commencement and completion:

55.1. On notification of possession of the site (or premises) being given to the contractor by letter registered for acknowledgement as provided in clause 9.1. supra, he shall forthwith begin the work, shall regularly and continuously proceed with them, and shall complete the same (except for painting or other work which in the opinion of the Executive Engineer, it may be desirable to delay) by the date of completion, as defined in the "Articles of Agreement subject nevertheless to the provisions of extension of time mentioned in the next clause. The contractor shall under no circumstances be entitled to claim any damages from Government if he incurs any expenses or liabilities to payment under the contract before the date of commencement defined above. The contractor shall have the right to withdraw from the contract and obtain refund of his security deposit if such intimation of handing over the site is delayed by more than two months from the date of acceptance of the agreement by competent authority.

## 56. Delays and extension oft/me:

56.1. No claim for compensation on account of delays or hindrances to the work from any cause whatever shall lie except as hereinafter defined.

Reasonable extension of time will be allowed by the Executive Engineer or by the officer competent to sanction the extension for unavoidable delays, such as may result from causes which in the opinion of the Executive Engineer are undoubtedly beyond the control of the contractor. The Executive Engineer shall assess the period of delay of hindrance caused by any written instruction issued by him at twenty five percent in excess of the actual working period so lost. If at any time the Executive Engineer is of the opinion that there has been avoidable delays and the contractor fails to maintain the "rate" of progress specified in the article of agreement, it shall be lawful for the Executive Engineer to impose penalty or order forfeiture from the Deposit sanction the extension of time for such delays, provided however, the penalty and forfeiture shall be governed as per clause 51.2. and 51.3.

56.2. ]n the event of the Executive Engineer to failing to issue necessary instructions and thereby causing delay and hindrance) the contractor the latter

shall have the right to claim an assessment of such delay by the Superintending Engineer of the Circle. The contractor shall lodge in writing to the Executive Engineer a statement of claim for any delayer hindrance referred to above within fourteen days from its commencement, otherwise no extension of time will be allowed.

56.3. Whenever, authorised alterations or additions made during the progress of the- work are of such nature in the opinion of the Executive Engineer as to justify 8" extension of time in consequence thereof, such extension of time will be granted in writing by the Executive Engineer or other competent authority when ordering such alteration or additions.

57. Delays in commencement or progress or neglect of work or suspension of works by the contractor and forfeiture of Earnest Money, Security Deposit and withheld amount.

57.1. Time shall be considered as The essence of the contract. If at any time the Executive Engineer, shall be of the opinion that the contractor is delaying commencement of the work, neglecting or delaying the progress of work as defined in the tabular statement... Rate of Progress in the Article of Agreement or the contractor fails to maintain the Rate of Progress in the Articles of Agreement plus any CA tension of time or the contractor shall suspend the works.. or sublet the work or d portion thereof without the sanction of the Executive Engineer or violates any of the provisions of the contract the Executive Engineer shall so advise the contractor and at the same time demand compliance. If the contractor neglects to comply with such demand within seven days after receipts of such notice, it shall then or at any time be ]awful for the Executive Engineer to impose a penalty or forfeiture on this contractor from the deposit or to determine the contract.

57.2. The penalty or forfeiture referred to in Clause 57.1. shall not exceed 5% of the work executed and is imposed in cases where the contractor is allowed to proceed with the whole or part and complete the whole or such part of the works. The penalty or forfeiture imposed by the Executive Engineer under this clause is however subject to modification or waiver at the absolute discretion of any authority higher in rank than the Executive Engineer.

57.3. It shall be a further right of the Executive Engineer to give any port of the work to any other contractor at his discretion or have it done departmentally in order to maintain the rate progress and the contract shall then be determined for only that portion of the work given to the contractor or done departmentally. The forfeiture under clause 57.2. will in these circumstance be applied any excess expenditure incurred on this account shall Le recovered from the original contractor.

57.4. Determination of the contract referred to in Clause 47." . shall carry with it the forfeiture at the Security [deposit. After determining the contract, the Executive engineer shall have the right to give any part of the work to any other contractor in the unexecuted portion of contract, in which case any expenses which may be incurred in excess of such amount which would have been paid to the original contractor if the whole work had been executed deducted from any money due t a him by Government it under this contract or any other account what so ever. Provided, also that if the expenses incurred by the Government are less than the amount payable to the contractor at his agreement rates the difference will not be paid to the contractor.

57.5. In the event of anyone of the above clauses being adopted by the Executive Engineer, the contractor shall have no compensation for any loss sustained by him reason of his having purchased or processed any materials or entered into any engagements or made any advances on account or with a view to the execution of the work art h e performance of contract, and in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to be paid any sum for any work actually performed under the contract unless and until the Executive Engineer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid' the value so certified.

57.6. In the event of the Executive Engineer putting in force oil or any of the powers vested in him under the clause57.4. he may if he so desires after giving a notice in writing to the contractor take possession of the works, and site and such plants and materials thereon (or any ground contiguous there of) and all such plant and materials as above mentioned shall thereupon be at the disposal of Government absolutely for the purpose of completing the work. After such notices shall have been given, the contractor shall not he at liberty to remove from the site or works of from the ground continuous Thereto any plant or materials belonging to him which shall have been placed thereon for the purpose of the above work. Government shall not be liable to make any payment to the contractor on account of use 0 such plant for the completion of the works, under the provisions herein before contained. On taking possession of the materials and stores belonging to the contractor or procured by the contractor and intended to be used for the execution of the work or any part thereof the contractor rates to be certified there of shall be final. Otherwise, the Government may give notice in writing to the contractor to remove any of his plant or materials from the site and not required or any completion of the works, if such plant and or materials are not removed within fourteen days after notice, shall have been so given, Government may remove and sell the same, holding the proceeds less the cost of removal and sale, to the credit of the contractor. The expense, of any such removal and the amount of the proceeds and expense of any such sale. shall be final and binding on the contractor

# I. PARTICULARS OF PAYMENT

# 58. Payment of lump sum basis or by final measurement lit unit prices:

58.1. Final measurements need not be taken unless either the contractor or the Executive Engineer claims extras to or deductions from, the quantities of Schedule A,

58.2. In case final measurements are claimed, they shall be taken only for those items for which either the contractor or the Executive Engineer claims final measurements and the quantities of the remaining items in Schedule. A shall be accepted as correct. The lump sum amount mentioned in the agreement will then be varied by adding thereto or deducting there from as the case may be, the difference if any between the amounts mentioned in Schedule A for such items and the amounts arrived at by calculation at contract rates based on the revised quantities for the same, obtained by the final measurements aforesaid.

58.3. It shall be accepted as a condition of the contract that the payment of the final bill to the contractor less the withheld amounts and his acceptance there of shall constitute a full and absolute release of Government from all further claims by the contractor under the contract.

59. Payment for additions and deductions for omissions.

59.1. No authorised variation shall vitiate the contract, but additions and omissions shan be measured up and dealt with in accordance with clause58.2

59.2. If there is no rate in Schedule' A ' for additional work ordered to be carried out by the Executive Engineer, when prior to execution of the additional work, shall be worked out in accordance with the methods indicated in59.3. and with the rate agreed upon a supplemental agreement shall be entered in the proper department'!! form signed and dated by the contractor and the Executive Engineer and or any other officer for the time being authorised to accept such agreement and supplemental agreement shall on such acceptance form part of the original agreement. A copy of the supplemental slip shall be given to the contractor.

59.3.1. The rate for additional works shall be derived from the rate for similar items of work in the accepted agreement,

59.3.2. In the case of works for which supplemental agreement is to be entered into during the period when the schedule of rates has not changed from the date of execution of the original agreement, then the rates for supplemental agreements may be the prevailing schedule of rates plus or minus tender premium in case the rates cannot be derived from the items in the original agreement, in other case where the schedule of rates prevailing as per the schedule of rates at the time of execution of supplemental items will be adopted with no tender premium over this rate.

59.3.3. If the rate for a particular item of work is not in the schedule of rates, the prevailing market rats when the work was done shall be adopted.

59.3.4. If the rates cannot be determined as above, the rates shall be fixed on the cost of labour and materials plus 10 percent thereon, provided the vouchers shall have been delivered to the Executive Engineer within 7 days after such work is completed. if the Executive Engineer considers that the vouchers are unduly high, the Executive Engineer can valuate work as reasonable and fair and make payment if the value of payment is less than Rs.1,000. If the value of additional payment exceeds Rs.1,000 the contractor shall have the right to submit the matter to arbitration.

59.A. In cases where the Government under the terms of the contact with the contractor are liable to supply and materials, articles or things to the contractor for the performance t)y ii r of his part of the contract, the Executive Engineer, may at his absolute discretion extend the time which such materials, articles or things may be supplied by the Government arid the Government may supply to the contractor such materials, articles or . timings within the time so attended without any liability on their part to compensate the contractor by reason of the extension of time for the supply of the materials, articles or things.

59.B. In cases where the Government under the terms of the Contract are liable to supply any materials, articles or things to the contractor for the .performance by him of his part of the contract and the Government for any reason are unable to supply such materials, articles or things either within the time specified in the contract or within the time extended under clause 59.A. the Executive Engineer may at his discretion or at the request of the contractor determine the whole or any part of the contract which cannot be performed by reason of the failure to supply such materials, articles or things and the contractor shall not be entitled to claim any damages or compensations in respect of such determination. The contractor shall, however, be paid the value of the work already done by him and the cost of the materials, articles or things if any collected by him upto the date of such determination and left unused on the work- on shall betaken over by the Executive Engineer either at the contract rates or at values deduced from the through rates deduced in the contract. When the contract is determined at the discretion of the Executive Engineer, he shall give notice in writing to the contractor and the decision of the Executive Engineer to determine the contract shall he final and bind on the contractor.

# **EXPLANATION:**

The expression "Through rates' means the rate for the finished items of work or the all in rates, that is to say, the rates for finished items of work inclusive of the cost of materials and labour.

59.C. if, at any time after the acceptance of the tender the Government shall, for any reason whatsoever not required the whole or any part of the work to be carried out, the Executive Engineers hall given notice in writing of the fact to the contractor. W ho shall have no claim to any compensation or other

payments whatsoever, who shall on account of any profit or advantage he might have derived from the execution of the work in full but which he did not derive in consequence of the termination of the works. He shall be paid at contract rates, for the work executed by him including any additional works such as clearing of site etc., that may be rendered necessary by such termination. He shall also be allowed a reasonable payment as decided by the authority next higher in rank to the authority which accepted the tender, for any expense incurred by him on account of labour and materials, articles or things collected, but which could not utilised on the works as verified by the Executive Engineer. Such decision shall be final and binding on both the parties and shall not be subject to arbitration under clause 73.

#### 60. No payment for unsanctioned extras:

60.1. It shall be distinctly understood that no payment whatever will be made to the contractor for variations by way of extras, in cases where such variations have been made without the written sanction of the Executive Engineer.

#### 61. Accounts Receipts and Vouchers;

61 .1 . The contractor shall at any time upon the request of the Executive Engineer furnish him with all invoices; account, receipts and other vouchers that he may require in connection with the contract.

#### 62. Fraud, willful neglect or default:

62.1. No final or other certificate of pay mentor of completion, acceptance or settlement of account shall, in any circumstances, relieve the contractor from his liability for any fraud, or willful neglect or default in the execution of the contract or any willful or unauthorised deviations from drawings, specification, instructions and directions for the time being binding upon him.

#### 63. Unfixed materials:

63.1. No payment or advance will be made for unfixed materials when the rates are for finished work in site.

#### 64. Payments and certificates:

64.1 Payments will be made to the contractor under the certificates to he issued at reasonably frequent intervals by the Executive Engineer or the SubDivisional Officer, within 1 4 days of the date of each certificate an intermediate payment will be made by the Executive Engineer or the Silo-Divisional Officer of a sum equal to 95 percent of the value of work as so certified and the balance of 5% will be withheld and retained as security for the due fulfillment of the contract.

Under the certificate to be issued by the Executive Engineer or Sub-Divisional Officer on the completions of the entire works, the contractor will receive the final payment of all the moneys due or payable to him under or by virtue of the contract except security deposit and the with held amount equal to 2 1/2 percent of the total value of the work done provided there is no recovery from or forfeiture by the contractor to be made under clause 57. The amount withheld from the final bill will be retained under. "Deposits" and paid to the contractor together with the Security Deposit after six months reckoned from the date of completion of work or as soon after the expiration of such period of six months as all defects shall have been made good according to the true intent and meaning thereof whichever shall last happen, in the event the final bill remains unpaid even after the period of six months before said, the Executive Engineer shall refund the security deposit which includes the E.M.D. and also the withheld amount on a separate bill if requested or by the contractor in writing. No certificate of Executive Engineer or Sub Divisional Officer shall be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which is related nor shall it relieve the contractor from his liability to make good defects as provided by the contract. The contractor when applying for a certificate, shall prepare a sufficiently detailed bill based on the original figures of quantities and rates in the contract scheduled to the satisfaction of the Executive Engineer, to enable the Executive Engineer or Sub-Divisional Officer to check the claims and issue the certificate. The certificate as to such of the claim mentioned in the application as are allowed by the Executive Engineer or the Sub-Divisional. Officer shall be issued within fourteen days of the application. No application for a certificate shall be made within fourteen days of a previous application.

64.1 .A. Not with standing the above clause, the withheld amount of  $2\frac{1}{2}$ % from the final bill in respect of contract for construction of original building, will be retailed by the Government for a total period of one year in lieu of six months period referred to in clause.

64.1 .B. and will be released after the expiry of one year period on execution an indemnity bond by the contractor to the satisfaction of the Executive Engineer for a further period of four years to ensure structural stability of the building under clause 26.1.A.

#### (G. O. MS. No. 181 PWD 28.1 .86)

64.2. When there are complaint from the Labour Department about non-payment of wages to the Labourers employee by the Contractors for the execution of work under agreement, the Executive Engineer, shall have full powers to withheld the bills claimed by the contractor pending clearance certificate form the Labour Department and to act as per the direction given by the Labour Department.

#### 65. Interest an money due to the contractors:

65.1. No omission by the Executive Engineer or the Su 13-Divisional Officer to pay the amount due upon certificate. shall vitiate or make void the contract nor shall the contractor be entitled to interest upon any guarantee fund or payments in arrear, not upon any balance which may, on the final settlement of his accounts, be found to be due to him.

65.2. Whenever the withheld amount reaches Rs.1,000 or a multiple thereof, the contractor may at .his option, deposit with the Executive Engineer any equal amount in sums of Rs.1,000 or in multiple thereof. in any of the forms of interest bearing securities recognized for the purpose by the T.N. Public Works Account Code and subject to the provisions thereof contained in which case the equivalent withheld amount shall be paid to him forthwith. The contractor will be permitted to exercise the option in this clause, subject only to the condition that the rates of progress contained in the Articles of Agreement is properly maintained.

#### 66. Acceptance of final measurements:

66.1. The contractor agrees that before payment of the final bill shall be made on the contract, he will sign and deliver to the Executive Engineer either in the measurement book or otherwise as demanded? valid release and discharge from any and all claims and demands whatsoever for all matters arising out of or connected with the contract and also produce a certificate from the Incomes tax Authorities that all income tax payable by him upto-date has been duly paid provided that nothing in this clause shall discharge or release the contractor from his liabilities under The contract. It is further expressly agreed That Engineer in supplying Executive The final measurement certificate need not be bound by the proceeding measurements and payments. The final measurements, if any of the Executive Engineer shall be final conclusive and binding on the contractor.

# 67. Recovery of money from contractor in certain case.

67.1. In every case in which provision is made for recovery of money from the contractor. Government shall be entitled to retain or deduct the amount thereof from any money, that may be due or may become due to the contractor under these presents and or under any other contract or contracts or any other account what so ever.

#### 67. A. Recovery under Revenue Recovery Act:

Whenever any amount has to be paid by the contractor in view of determination of the contract by virtue of clause 57 (4) or any amount that may be due or may become due form the contractor under these presents and the contractor not responding to the demands for the payment of the ;aid amount, then the Govt., shall be entitled to recover the said amount under the provisions of the Revenue Recovery Act.

#### (G. O. Ms. No.3659 PWD 23.12.70)

# 68. Contractor dying becoming insolvent, insane or imprisoned:

68.1. In the event of the death or insanity or insolvency or imprisonment of the contractor or where the contractor being a partnership or firm 'becomes dissolved or being a corporation goes in to liquidation, voluntary or other wise, the contract may at the option of the Executive Engineer, be terminated by notice in writing posted at the site of the works and advertised in one issue of the local district Gazettee and all accepted and acceptable works shall forthwith be measured up and paid for at the rates provided in the contract schedule 0 rain of the division approved by competent authority '0 the person or persons entitled to receive and give a discharge for the payment.

#### J. SETTLEMENT OF DISPUTES

#### **69.** Arbitrations:

69.1 In case of any dispute or difference between the parties to the contract either during the progress or after the completion of the works or after the determination, abandonment or breach of the contract, or as to any matter or thing arising there under except as to the matters left to the sole discretion of the Executive Engineer under clauses 18,20.25.3, 27, 34, 35 and 37 of "General conditions of contract" or as to the with holding by the Executive Engineer of payment of any bill to which the contractor may claim to be entitled, the either party shall forthwith give to the other notice of such dispute difference and such dispute or difference. shall or be and is hereby referred to the Superintending Engineer of the nominated circle mentioned in "Articles of Agreement" therein after called the "Arbitrator" in cases when the value of claim is less than & upto Rs.50000. In cases when the value of claim is more than Rs.50000 the parties will seek remedies to the competent civil courts. (G.0.Ms.No.253 pass 24.9.81) The Arbitrators shall give detailed reasons in their findings and conclusion (G.0.Ms.No.1 844 pass off 18.7.86)

69.2. Subject as aforesaid to the provisions of the arbitration Act, 1 940, or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the Arbitration proceeding under this clause.

69.3. Upon every and such reference, the costs of and incidental to the reference and award respectively shall be discretion of the arbitrator. Subject tot he condition that the amount of such costs to be awarded to either party shall not, in respect of a monetary claim exceed the percentage set out below of any such award irrespective of the actual fees, costs and expense incurred by either party provided that where a monetary claims disallowed in full the said percentage shall be calculated on the amount of the claim. The arbitrator may determine the amount of the costs be awarded or direct the same to be taxed as between solicitor and client or as party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

69.4. The fees for arbitrators shall be levied based on the value of claims referred to for arbitrations. The fees shall be calculated at 5 percent of the first Rs.10000/- and 3 percent of the next Rs. 40000/-

# (G.O.Ms.No. 1844 pms dt 18.7.86)

69.5. Provided that the Government shall not be liable to any claim in respect of any such dispute or differences until the liability and the amount thereof shall have been referred to and decided by the Arbitrator

#### **APPENDIX -1**

#### PUBLIC WORK DEPARTMENT SAFETY CODE

#### General Rules as to Scaffolds.

1 . Suitable scaffolds shall be provided for workman for all works that cannot be safely done from a ladder or by other means. When a ladder is used an extra Mazdoor shall be engaged for holding the ladder and the ladder shall be given an inclination not steeper than 0.25 to I (0.25 horizontal to I vertical) when the ladder is used for carrying materials as well, suitable foot holds and hand holds shall be provided on the ladder.

2. A scaffold shall not be constructed, taken down or substantially altered except (a) under the supervision of a competent and responsible person: and (b) as for as possible by competent workers possessing adequate experience in such work.

All scaffolds and appliances connected therewith and all ladders shall

- a) be of sound materials
- b) be of adequate strength having regard to the load strain to which they will be subjected and
- c) be maintained in proper condition

4. scaffolding or staging more than 3.5 metres above the ground or floor shall have a guard rail properly attached bol-braced and otherwise secured atleaset 0 metres above the floor or platform of such scaffolding or staging extending along the entire length of the outside and ends thereof with only such opening as may be necessary for delivery of materials. Such scaffolding or staging shall be so fast ends as to prevent it from swaying from the building or structure.

5.Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use

6.Scaffoldis shall not be overloaded and so for as practicable the load shall be evenly distributed.

7.Before installing lifting gear of scaffolds specials precautions shall be taken to ensure the strength and stability of the scaffolds. 8.Working platform, gangways and stairways should be so constructed that no part there can save unduly or unequally. If the height or the platform or the stairways is more than 3.5 metres above ground level or floor level they should be closely boarded, should have adequate width and should be suitably fenced as described in (4 above)

9. Every opening in the floor of a building or in a working platform shall be provided with suitable fencing or railing for a minimum height of 0.9 meter to prevent the fall off persons or material.

10. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed No portable single ladder shall be over 9 metres in length while the width between side rails in rung ladder shall in no case be less than 30cm for ladder upto and including 3 metres in length. For longer ladders this width should be increased atleast 20mm for each additional metre of length uniform step spacing should not exceed 30cm. Adequate precautions should be taken to prevent danger from electrical equipment. No materials on the site of work shall be so stacked or placed as to case danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the Public from accidents and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damage and cost which may be awarded in any such suit, action or proceedings to any cost which may with the consent of the contractor be paid to compromise any claim by any such person.

#### **Excavation and trenching:**

11.Trenches-1.2 metres or more in depth, shall at all times be supplied with atleast one ladder for each 20 metres in length or fraction thereof. Ladder shall be extended from bottom of the trench to atleast o.a metre above the ground. The sides of the trenches which are 1.5 metres or more in depth shall be stepped back to give suitable slope or hold securely by limber bracing, so as to avoid the danger of sides to collapse.

12. Demolition-Before any demolition is commenced and also during the process of the work.

a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.

b) No electric cable or apparatus used by the operator shall remain electrically cliarged.

c) All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded ~~'''... debris or materials as to render it unsafe.

13. All necessary personal safely equipment as considered adequate by the Executive Engineers ha 11 be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, land the contractor should take adequate steps to ensure proper use of equipment by those concerned.

a) Works employed on mixing asphalted materials cement and time mortars- shall be provided with protective footwear and protective goggles.

b) Those engaged in while-washing and mining or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.

c) Those engaged in welding works shall have provided with welder's protective 513- '195.

d) Those engaged in welding works shall be provided with welder's protective 513- '195.

e) When workers are employed in sewers and man holes, which are in use, the contractor shall ensure that the manholes covers are opened and are ventilated atleast for an hour before the workers are allowed to get into them an holes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.

f) The contractor shall not employ men below the age of 18 years and women on the work of painting, with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precautions shall be taken.

i) No paint containing lead products shall be used except in the form of paste or ready - made paint,

ii) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped. iij) Overalls shall be supplied by the contractors to workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

iv) When workers are employed in dangerous occupations like work with hot bitumen, drilling operations etc., which are likely to prove dangerous resulting in physical damage and casualty, adequate protection of the workers should be provided.

14. When the work is done near any place. where there is risk of drawing all necessary equipments should be provided and kept ready for use and all necessary equipments steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatments of all injuries likely to be sustained during the course of the works

15. a) Hoisting machines and tackle including their attachments anchorages and supports shall be good mechanical construction, sound materials and adequates strength and free .from patent defect and shall be kept in good repair and in good working order. Every rope used in hoisting or lowering materials or ass means of suspension shall be of suitable quality and adequate strength and free from patent defect.

b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in control of any hoisting machine, including the scaffold which or give signals of the operator,

c) In the case of every hoising machine and of every chain ring hook shackle level and pully block used in hoisting lowering or as a means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all car referred to above shall be painly marked with the safe working load, in the case of a hoisting machine Slaving variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any hoisting machine or of any gear referred to above in this-paragraph shall be loaded beyond the safe working load except for the purpose of testing.

16. Motors, gearing, transmissions, electricity wiring and other dangerous parts of hoisting appliance shall be provided with efficient safeguards, Hoisting appliance shall be provided with such means as will request to a minimum the risk of the accidental descent of the load. Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

When workers are employed on electrical installations which are already energized, insulation mats, wearing apparel such as gloves, sleeve', and boots as may be necessary should be provided. The workers and carry keys or other materials which are good conductors of electricity.

17. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at workshop. The person responsible for the compliance of the safety code shall be named by the contractor.

18. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Executive Engineer of the Department or other representative.

19. Notwithstanding the above clauses (1) to (1 8.) there is nothing in these to exempt the contractor from the operations of any other Act of rules in force in the Republic of India.

Model rules for provision of Health and Sanitary arrangements for workers employed by the P.W.D. and Highways and Rural Works Department and their contractors.

The contractor's special attention is invited to relevant clauses of the "General conditions of control" in the Tamil Nadu Building Practice and he is requested to provide at his own expense the following amenities to the satisfaction of the Executive Engineer.

1. Application - These rules shall apply to all building and construction works in charge of P.W.D.

2. Definitions- (i) "Workplace" means a place a which an average fifty or more workers are employed in connection with construction work.

(ii) "Large work place" at which, at an averaged 500 or more workers are employed in connection with construction work.

3. First-Aid - (a) At the work site there shall be maintained in a readily accessible place, first aid appliance and medicines including an adequate supply of sterilized dressing and sterilized cotton wool. The appliances shall be kept in good order. They shall be placed under the charge of a responsible person who shall be readily available during working hours b) At large work places, where hospital' facilities are not available within easy distance of the works, first aid posts shall be established and be run by a rained compounder.

c) Where large work place are remote from regular hospitals an in-door ward shall be provided with one bed for every 250 employees.

d) Where large work places are situated in cities, towns or in their suburbs and no beds are considered necessary owing to the proximity or city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to these hospitals. At other work places some conveyance facilities, such as a car shall be kept readily available to take injured persons or persons suddenly taken seriously ill to the nearest hospital.

4. Drinking water-(a) Water of good quality fit for drinking purposes shall be provided for the work people on a scale of not less than 1 5 litres per head per day

b) Where drinking water is obtained from an intermittent public water supply each work place shall be provided with storage tank where such drinking water shall be stored.

c) Every water supply storage shall be at a distance of not less than 1 5 metres from any latrine, drain or other source of pollutions.- Where water has to be drawn from an existing well, which is within such pro minify of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.

d) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done atleast once a month.

5. Washing and bathing places-Adequate washing and bathing places should be provided, separately for men and women such places shall be kept in clean and drained condition. Bathing or washing should not be allowed in or near any drinking water well.

6. Latrine sand Urinals- There shall be provided within the precincts of every work place, latrines and urinals in an accessible place and the accommodation separately for each of thorn, shall be on the following scale or on the scale so directed by the Executive Engineer in any particular cases. i) Where the number of persos employed does - 2 not exceed 50.

ii) Where the number of persons employed exceed 50 - 3 but does not exceed 100.

iii) For every additional 100 ... -3

If women are employed separate latrines and urinals, screened from those for men shall be pro vided on the same scale.

Except in work places provided with water flushed latrines connected with a water borne sewage system, all latrines shall be provided with receptacle on dry earth system which shall be cleaned atleast four times daily and at least twice during the working hours and kept in strictly sanitary conditions. The receptacles shall be tarred inside and outside atleast .once a year.

The excreta from the latrines shall be disposed off at the contractor's expense, in out way pits approved by the local Public Health Authority. The Contractor shall also employ adequate number of scavengers and conservancy staff to keep the latrines and urinals in a clean condition.

7. Shelters during rest: At every work site there shall be provided, free of cost, two suitable sheds one for meals and the other for rest separately for men and women for the use of labourer.

8. Creches: (a) At every work place at which 50 or more women 'workers are ordinarily employed there shall be provided two huts of suitable size for the use of children under the age of 6 years, belonging to such women, one hut shall be used of infants, games and play and the other as their bed room. The huts shall not be constructed on a lower standard than the following:

i) thatched roofs

ii) mud floors and walls.

iii) Planks spread over the mud floor and covered with matting.

The huts shall be provided with Suitable and sufficient opening for light and ventilation. There shall be adequate provision of sweepers to keep the places clean. There shall be two attendance Sanitary utensils shall be provided Health Officer of the area concerned. The use of the huts shall be restricted to children, their attendants and mothers of the children. b) Where the number of women workers is more than 25 hut less than 50, the contractor shall provide atleast one hut and one Dai to look after the children of women workers.

c) The size of creche or creches shall vary according to number of women workers.

d) The creche or creches shall be properly maintained and necessary equipment like toys, etc. shall be provided.

9. Canteens-A cooked food canteen on a moderate scale shall be provided for the benefits of workers if it is considered expedient.

10. Sheds for Workmen - The contractor should provide at his own expense sheds for housing his workmen. These sheds shall be on a standard not less than the cheap shelter type, to live in which the work people in the locality are accustomed to.

A floor area of about 1 .8 metres x 1 .5 metres for two persons shall be provided. The sheds to be. in rows with 1.3 metres clear space between sheds and 9 metres clear space between rows if conditions permit. The work people's camp shall be laid out in units of 400 persons, each, each unit to have a clear space of 1 2 metres alround.

#### APPENDIX IX. XXXVIII

#### MONTHLY REPORT OF CONSTRUCTION EMPLOYEES UNDER CONTRACTORS

#### **Return for the Month Ending**

- 1. Name location and type of work
- 2. Name of contractor
- 3. Works engaged in i) P.W.D. work
- ii) Government work other than PWD
- iii) Other works
- 4. Name and address of Manager(s) of works

#### 5. Value of Contract

6.Employment earnings

#### Employees

Category	Men	Women	Boys	Girls
(1)	(2)	(3)	(4)	(5)

- i) Total number of employees during the month
- ii) Number of employees in the work on the last working day of the month
- iii) Total wages paid for the
- iv) Total number of working days during the month
- v) Length of normal wage period.
- То
- 1. The Employment officer District Employment Office
- 2. The Executive Engineer Division

#### Instruction to complete the Proforma

1. Contractor means the person who has contracted execute the works

2. Manager means any person who manages, supervises the works on behalf of the contractor

3. Item (i) the cumulative total of daily employment on all days in a calendar month if the last day of the calendar month is a holiday, the working day immediately precious to the holiday.

### Item 6. (ii) wages means basic wage, dearness allowance, project allowances etc., including work benefits paid in cash or kind

Item 6. (iii) Columns 2 and 3 refer to adults who are 18 year of age or over

Item 6 - Column 4 and 5 refer to others not covered by columns 2 and 3

4. Returns should cover a calender month

5. Completed returns to reach the employment exchanges concerned on or before the 5th of the month succeeding the month to which he return relates.

#### **ADDITIONAL CONDITIONS**

1. Departmental supply of the Materials : Nil

# 2. Centering works

Payments for centering works for all RCC items shall be made only after concrete is laid, eventhough separate rate is called for centering work in the schedule.

# 3. Concrete for RCC works

All cement concrete for RCC works shall be machine mixed and vibrated.

# 4. Special conditions for earthwork excavation in hard rock requiring blasting:

In the case of earth work excavation in hard rock requiring blasting the tender should observe the following conditions.

The blasted rock shall be compactly stacked for measurement. The net quantity of blasted rock shall be arrived at by allowing a deduction of 40% for voids and compared with the premeasured quantity and only the lesser of the two shall be paid.

Where the rock other than hard rock and hard rock arc mixed upon ground the two kinds (if rocks shall be separately for measurement. The total of the net measurement of the two kinds of rock shall be arrived by applying 40% deduction for voids. The total of the net measurement of two kinds or rock shall be compared with the premeasured quantity and only the lesser of the two shall be paid for. If the total of net measurements of the two kinds of rock exceeds (or) falls short of the measurements of mixture, the volume of mixture proposed to he paid shall be apportioned in the proportion of the net actual measurements or stacks of the two kinds of rocks.

Payment for 'earthwork for embankment will be made excluding the quantity of pebbles and boulders and other such materials which shall not normally be used along with earth for formation of bund.

- NOTE: i) 40% deduction for voids shall be adopted for compact and proper stacking but such percentage of deduction shall be: increased for loose (or) improper stacks.
  - ii) The blasted rock material, stacked, measured and paid for shall become the property of the department.
  - iii) I. S. Code No. 1200 (Part 1) I 9G9 method of measurement of buildings and Civil Engineering of work, Part I "Earthwork" may be referred as and when necessary.

#### 5. Employment of Technical Assistant:

For more than one work: One technical assistant he employed by the contractor for more than one work situated within one kilo metre, provided that monetary limit prescribed for the nature of Technical staff to be employed is adhered to be one and the same contractor.

Other Engineering qualification:

The contractors who possess a degree in mechanical or chemical engineering may also have to appoint technical assistants as in the case of registered contractors with degree in electrical engineering, when they are entrusted with civil works by the department.

### 6. Mosaic Flooring:

1. Cement concreting flooring tiles shall be manufactured from a mixed cement natural aggregates and colour materials where required by pressure process. During manufacture the tiles shall be subleted to a pressure of not less 140 kg/1 m2 (or) 2000 Ibs/sq. inch.

2. Proportion of cement to aggregate ii', backing of the tiles shall be not less than 1:5 by weight.

3. On removal from mould the tile shall be kept in moist condition continuous for atleast 7 days and subsequently if necessary kept m 0 is t for such a longer period that would ensure their confirmity, to the requirements of Transfers, strength, Resistance to wear and tear absorption and would minimise, shrinkage and cracking tiles shall be stored undercover.

4. TOLERANCE: Tolerance on length and breath shall be plus or minus one millemetre Tolerance on thickness shall be plus 5mm that the range of dimensions if any of one delivery of this shall not exceed 1 mm on length and breadth and 3mm on thickness.

THICKNESS OF WEARNING	GLAYERS
Class of Tiles	Minimum thickness of wearing layer
Plain cement and plain coloured tiles for general duty	3 mm
Plain cement and plain coloured tiles for heavy duty	6 mm
(Mosaic) terrace tiles with chips of size varying from the smallest upto 6mm (¼ ")	5 mm
(Mosaic) terrace tiles with chips of size varying from the smallest upto 6mm (¼ ")	5 mm
(Mosaic) terrace tiles with chips of size varying from the smallest upto 6mm (¼ ")	6 mm

5. Colours and appearance: The colour and texture of the various layer shall be uniform throught its thickness

6. When specifying the tiles, the contract should specification indicate whether the chips to be used are from the smallest chips 6mm or from the smallest up o 12mm or from the smallest up to 20mm size. The officers of the department shall also specify size of chips referring the approximate photograph given in figure 4 to figure 5 in Indian standard 1237/1959

# **GENERAL QUALITY OF TILES**

7. Unless otherwise required the wearing face for terrace shall be mechanically sound and flat. The wearing face of the tiles shall be plane free from projections, depressions and crack. (Here cracks not included) and shall be reasonably parallel to the back face of tiles. All angle shall be right Angles and all edges shall be sharp and true.

# 8. Breaking Traverse strength of the shall be given as

Size of tiles	span	Breaking Wet test	
19.85 x 19.85 cm	15cm	71kg	
24.85 x 248.5 cm	20 cm	90 kg	
29.85 x 29.85 cm	25 cm	99 kg	

9. The average wear of net less than 12 specimens shall not exceed 2mm and the wear on any individual specimen shall not exceed 2.5 cm when rested in any Abrasion machine

10. The average percentage of water absorption shall not be less than six. Full tiles shall not exceed ten in the case of water absorption test.

11. The density of the tiles shall be in the order of about 2.4 gms. The tiles shall be laid with the minimum possible width of joint and not exceeding 1/32 inch. The joints shall be filled with gray cement to match the finish of the tiles and shall be made almost invidilble when the floors is given the final polish. The polishing shall be done means of electric polisher wherever possible and ~and polish to other places like vertical faces, or walls, covers and other areas where the machines can have no access and to high degree so as present a perfectly smooth and glossy surface as even as possible

12. All angles at junctions of vertical face shall be rounded off to 1/'1-" radius with same quality of materials and colour of the tiles of the floor. But laid in site and these cover shall be measured as part of flooring and laid for at the same rates as the flat floors. The clolours of the tiles shall generally match other coloured face adjacent or as may be directed by Executive Engineer.

13. The dadooing and skirting have to be finished by giving necessary race in the brick wall itself so that the projections does not exceed  $\frac{3}{4}$ " from the face of the wall. i.e. the finish plastered surface.

#### SPECIFICATION FOR SANITARY FITTINGS DRAINAGE AND WATER SUPPLY

7. Water Closets, basins, urinals, sinks and other sanitary shall be approved make as required in the relevant items these shall be in accordance with the special specification.

8. The rates shall include all dismantlings making holes or slabs and restoring the structure to the original conditions of the completion of the work.

9. The work should be carried out with least hindrance to building and the contractor shall be responsible for any damaging to the existing fixtures, electric fittings etc., in the execution and the Contractor shall make good any such damages claim for extra.

10. The rate for laying stone ware pipes shall include necessary all incidental charges during execution of work and making good the damages to roads and other structures.

11. The rates for laying C.!. Pipe and G.!. Pipes (or P.V.C. Pipes) shall include fixing with wooden plugs C.I. / C.I. clamps and these screws where the pipes are fixed to walls. The rates for Pipes shall also include wrapping them with tarrod tape are hurried in earth, tarring the portions embedded in and painting with white lead into two coats for portions above ground level.

12. The clamps for G.!. Pipes fittings should not be spread than a part, the wooden plugs, for pipe and bracket fitting should be properly fixed in C.M. 1:3 in holders main thereby with the wide and of wedge shapped plugs inside and not with them and into the wells. The size of plug should be not less than 1 square at one end 1 1/2 at the other end, with a depth of not less than 3".

13. Painting with two coats of best white paint (or any other coloured approved by the Executive Engineer) over a priming of red lead to all flushing tanks, brackets, clumps used for fixing pipes and all other connections.

14. The rates shall all included dismantling, making holes on walls, on slabs and restoring the structure to the original conditions after the completion of the work.

15. The contractor should employ sufficient number of qualified licenced plumber with necessary experience and skill in the to the satisfaction of the Executive Engineer concerned for execution of water supply arid sanitary items of work.

16. The water for the works shall be as for as practicable from earthing vegetable or organic matter and from salts or substance likely to interfere with the setting of mortar prove harmful to the work.

17. All items of work shall be- done in accordance with relevant clauses of TNBP and addenda volume to the TNBP as from time to time

18. The contractor shall be responsible for the safe custody of the departmental materials once they are handed over to the Contractor at the departmental stores. The cost of any material the custody of the Contractor lost, stolen, destroyed or damaged or if rendered unfit for the work will be recover from the Contractor at the issue rate.

19. For testing the concrete and aggregate the Contractor procure the following equipments and make them available.

20. Steel mould for making 1 5 cm cubes of concrete (The mould be in two halves for easy removal).

21. Slum cone for testing consistency (Slum test) the cone will be 30cm height with top and bottom diameters of 10 cm and 50 cm in length. In addition a steel rod I 5cm dia and 50cm in length and with tamping and rounded is to be procured.

22. For finding finess mouldes sand and coarse aggregate a hand operated sieve apparatus may be procured along with weighing machine for weighing the aggregate and sand.

23. In the case of any breach of the terms of the contract, the contract will be closed at the risk and costs of the Contractor in addition to the forefeiture of the EMD and Security Deposit.

24. The testing is to be done at the Contractor's cost for all building materials and also for concrete cubes.

25. The work shall be executed and measured as per metric dimension given in the schedule of quantities 6 drawing etc., (F.P. Units where indicated are for guidance only).

26. Unless other wise specified P.I' the rates quoted by the Contractor shall be for works at all levels of the buildings.

27. Rates for every item of works to be done under this contract shall be for all lifts and leads, heights, depths, length and 'widths except when specifically mentioned in the item, otherwise nothing extra will be paid on this account.

28. The work shall be carried out as per drawings and designs supplied by the Department and as directed by Engineer-in- Charge.

29. The rate for all item in which use of cement is involved is inclusive of charges for curing.

30. The Contractor has to make his own arrangements for procuring water for construction purpose construction and curing should 1)- done with water free from injurious amounts of deleterious materials, potable water are generally considered, satisfactory for curing and fixing concrete and masonry. However the water tube used should be periodically tested at Contractors cost for its suitability for using in the construction work and got approved from Department Engineers.

31. Electricity: The contractor should make his own arrangements for obtaining electricity for all types of his use like lighting welding pumping and mosaic and marble polishing etc.,

32. Any damage to work resulting from rains or from any other cause until these work is taken over by the Department after completion will be made good by the contractor at his own cost:

#### SUPPLY AND FIXING INDIAN TYPE WATER CLOSETS

33. The Indian type water closer shall be fixed in position at floor level in a bed of concrete brick jelly in lime mortar 1:2 so as to complete by embedding the closet trap an foot rests. The existing masonry structure after dismantling the floor making the holes etc., shall be rested to its original condition after completion of the work. The foot rests should be fixed at an angle as per standard.

34. The PVC flushing tank shall be three gallons capacity of Indian make (confirming to ISI specification) supported on CI brackets with necessary CI chain and handle for pull float ball valve <sup>1</sup>/<sub>2</sub>" PVC connection to the water main and closet including pipe with the white glazed pant 2 coats over a priming coat of red lead

35. The fixing of water closet shall including the dismantling of existing floor wherever indicated making holes in necessary walls etc., and restoring structure to original condition after completion of the work. The flushing tank and accessories will be fixed to the walls with necessary clamps and brackets in CM 1:4.

36. The Contractors shall be solely responsible for the payment of Sales Tax under the provision of the Madras Central Sales Tax Act (Madras Act II of 1980) as inforce for the various items of work time being and the rate for the various items of work shall remain unaffected by any changes that may be made from time to time in the rate at which such tax should be payable. Sales tax on the matter also supplied to the contractor as amended from time tom time shall be paid by them separately and the relevant challans produced to the Departmental Officers.

#### **ELECTRIFICATION WORKS**

The tenderer shall furnish the electrical tie-up Engineer details with license for executing the building electrification works, experience details etc.,

#### 1. TERMS OF PAYMENT:

(a) The cost of materials will be released after receipt of materials at site in good condition, and payment will be paid on completion of work (i.e) on Commissioning and handing over of the plant to the Department in Satisfactory working condition for electrical works.

#### 2. GUARANTEE :

The plant should be guaranteed against faulty design, materials manufacture and workmanship for a period of 12 months from the date of handing over of the plant to the Department in perfect working condition. The guarantee should cover free replacement of defective parts / accessories. Lubricating of the parts descalin of condenser, recharging of fresh refrigerant and Gas whenever necessitated during the guarantee period. The To and FRO Bata charges for mechanic and transport charges for taking defective materials to the company and bringing them back to the site should be borne by the firm only. If at any time during the guarantee period the plant is out of order for more than a month at a time, then the GUARANTEE period will be extended by the period RECKONED from the date the PLANT went out of order to the date when it was recommissioned.

## 3. FREE SERVICING:

The plant should be serviced regularly every month during the GUARANTEE PERIOD FREE OF CHARGE. Break down calls should be attended immediately free of charge. The firms capability in ensuring required after sales Services must be stated.

a) Firm having full Fledged Service, Station in Madras for nearby will be preferred. The location of the Service station should be stated.

# 4. TRAINING THE DEPARTMENT PERSONS:

The tenderer should be ready to train the Departmental persons on the Operation maintenance and fault detection and design of the plant during the erection period and servicing period also.

- 5. a) All the electrical wiring should be done as per the latest I.E, rules.
  - b) Necessary Physical Layout and Electrical Schematic Line Diagram of Electrical portion of A.C. plant and circuit Diagram for the control panel and connected M.V. drawings shall be prepared and got approved by the C.E.I.G. Madras-32 if necessary at no extra cost. The firms should also see to if that safety certificate from C.E.I.G. Madras-32 is obtained for electrical Installation if necessary at no extra cost The inspection charges payable to C.E.I.G will be brone by the Department. 3 Sets Electrical Wiring diagram and 3 set maintenance instruction should furnished while handing over the plant to the Department among which one copy should be neatly framed for keeping it in the plant room at no extra cost.
  - c) All iron and steel work including the equipment shall be provided with two coats of enable paint over one coat red oxide paint.
  - d) The Motors and all other metal parts shall be effectively earthed.
  - a) Necessary Tests for the performance should be carried out.
  - b) All the Refrigerant lings should be properly clamped.

# 6. TESTING:

After the completion of the installation, the equipment shall be adjusted and tested fully. The following details shall particularly be applicable.

- i) After the trial run is carried out, the A.C. unit shall be adjusted to the initial running for a period of three days before taking any test of the installation the should demonstrate trouble free performance and capability during running.
- ii) (a) Test for unit capacity in T.R. by Computation for temperature and flow measurement.(b) Test for operation of various controls.
- iii) Any other test desired necessary by Engineer-in-Charges.

In case the test result are not found satisfactory and further tests are considered necessary the contractor shall bear all the expense thereof.

All test equipment, labour, operating personnel, Oil and refrigerant required for these tests shall be furnished by the Contractor to enable the A.C Units to be put in a continuous running test for a period of five days after all other tests and adjustment have been made. The contractor shall give one test for summer to prove, compliance with design conditions.

h) The gauges and cut outs should be installed in a separate panel installed on the wall or in a separate stand away from the foundation.

i) All the liquid lines should be properly clamped.

# SPECIAL CONDITIONS FOR QUALITY CONTROL SYSTEM

- 1) The Contractor shall establish Quality Assurance and Quality Control Systems In accordance with Quality Assurance Plan to prove compliance with the requirements of the contract as approved by the Executive Engineer (or) Engineer-in charge concern.
- 2) The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel consumables, instruments, labour, materials and suitably qualified and experienced staff as are necessary to carry out the specified test efficiently. The samples shall be collected and the tests may be conducted in the presence of the Engineer-in-Charge or his authorized representatives.
- 3) Alternatively, the contractor may test the materials during execution of works at the reputed laboratories approved by the Executive Engineer **at the contractors own cost**, provided that the samples are collected with proper identification marks in the presence of the Engineer-in-Charge or his authorised representative.
- 4) The frequency of testing of materials shall be in accordance with the relevant IS codes.
- 5) Compliance with the Quality Assurance / Quality Control Systems shall not relieve the contractor of any of his duties, obligations or responsibilities covered under the contract.
- 6) The Engineer-in-charge shall check the contractor's work and notify the contractor of any defects that are found. Such checking shall not affect the contractor's responsibilities. The Engineer-in-charge may instruct the contractor to search for a defect and to uncover and test any work that the Engineer-in-charge considers may have a defect.
- 7) If the contractor has not corrected a defect within the time specified in the Engineer-in-charge notice, the Engineer-in-charge will assess the cost of having the defect corrected, and the contractor have to bear the costs

Table IV : Preliminary Test

WORK TEST

ACCEPTANCE CRITERIA FOR CONCRETE (ALL GRADE)

#### Strength but this shall not be less than the strength once in 7 days of three consecutive average strength tested is not less than 90% for the of the specimen there after atleast only one out of test may give a value less than Acceptance **Optional tests** condition that subject to the Criteria At such intervals Accepted to specified in **Table-I** (For see Table-2) (11) for specified specified strength. However in the case of concrete sample shall be day for the first as the Engineer drawn on each concreting and In terms of incharge, may Period four day of (10) concreting. Minimum Frequency decide. concrete of part In terms of the quality of concrete cubic metre of For every 150 (6) thereof Minimum No. of specimens taken from the same days work optional test 7 days test if desired as an (8) 3 Beams optional test 72+2 Hours if desired test as an 5 3 compressive strength test 28 days (9) 3 Cubes test if desired compressive strength test as optional 7 day (2) 3 the compressive five consecutive specimen tested only one out of test may give a is not less than value less than strength of the Acceptance condition that Optional tests subject to the compressive Criteria Accept for if See Table-2) specified in **[able-I** (For for (4) specified strength. average strength with a minimum of three batches For each batch Minimum Frequency 3 compressive strength test Minimum No. of specimens 28 days from each batch (cubes) (5) S test if desired compressive strength test as optional 7 day 1 S

CONTRACTOR

(1)	(2)	(3)	(4)	(5)	(9)	· (7)	(8)	(6)	(10)	(11)
	10	For each batch Accept f with a minimum average of three batches compres strength specified is not lee the compres strength more th specified that the compres strength i, by ath value of series of eviatic deviatic deviatic	Accept for if average compressive strength of the specimen tested is not less than the compressive strength strength in that the average compressive strength shall be more than the specified compressive strength in Table- I, by atleast the value of standard deviation * Standard deviation	J.	ט	Ŋ	N	For every 150 cubic metre of concrete of part thereof	At such intervals Accept if average as the Engineer strength of the incharge, may specimen tested decide. In However in the specified in controlled prover in the specified in controlled Table-1 (For concrete samples optional tests shall be drawn see Table-32) on each day for subject to the the first four concreting and consecutive tests there after atleast may give a value one seven days specified specified specified in concreting.	Accept if average strength of the specimen tested is not less than the strength specified in Table-1 (For Optional tests see Table-32) subject to the condition the one out of five consecutive tests may give a value less than the specified strength.
* standard deviation = d2 / (n-1) Where 'd' individual deviation fr	ion = d2 / (n-1 ual deviation f	) ) from the average an	* standard deviation = d2 / (n-1) Where 'd' individual deviation from the average and 'n' number of specimens tested.	imens tested.						

