



**GOVERNMENT OF TAMILNADU
PUBLIC WORKS DEPARTMENT**

**OFFICE OF THE SUPERINTENDING ENGINEER, P.W.D./W.R.D.,
THAMBARAPARANI BASIN CIRCLE,
TIRUNELVELI – 2.**

TENDER DOCUMENT

**Name of work: Improvements to Thalakulam Anicut and
Manavalakurichi Big Tank in Manavalakurichi village
of kalkulam Taluk in Kanyakumari District**

TOTAL NUMBER OF PAGES IN
THIS TENDER DOCUMENTS } **97(Ninety seven) Pages only**

NUMBER OF ITEMS IN SCHEDULE "A" : 28 (Twenty eight) Items Only

TENDER SHALL BE SUBMITTED ON OR BEFORE 3.00 P.M. ON : 28.07.2022

TENDER DOCUMENTS SOLD TO

**Superintending Engineer WRD.,
Thambaraparani Basin Circle,
Tirunelveli – 627 002.**

ANNEXURE

PARTICULARS TO BE FURNISHED BY THE TENDERER

1. Name of the tenderer and :
address
2. Name of Work :
3. Date of tender :
4. Total value of tender :
5. Details about E.M.D. enclosed :
for this tender and its validity
6. Registered class of the :
tenderer with monetary limit
and department in which
registered. Certified copy of
the registration should be
attached
7. Recent work (details about :
name and place of work, value
of the work etc., should be
furnished)
8. Works under execution (details :
about name and place of work
value of the work etc., should
be furnished)
9. Command of labour in brief :
10. Turnover of previous years :
(Particulars for a period of
three consecutive years to be
furnished)
11. Whether Income Tax clearance :
certificate is enclosed. If not
when it will be produced?

12. i. Sales Tax Registration :
Number
- ii. Whether Sales Tax :
clearance certificate is
enclosed? If not, when it will
be produced?
13. In case of registered co- :
operative 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 a
registered contractor in the
Department.
14. Technical Assistant Details :
- 1.Name :
- Qualification Certificate :
- Experience Certificate :
- 2.Name :
- Qualification Certificate :
- Experience Certificate :
- (OR)
- 1.Name :
- If retired Civil Engineer, :
Designation and date of
retirement (copy to be
enclosed)
15. Any other details :

Note : The consent letter from the Technical Assistant proposed to be employed should be obtained and enclosed with the tender.

**GOVERNMENT OF TAMILNADU
PUBLIC WORKS DEPARTMENT**

**OFFICE OF THE SUPERINTENDING ENGINEER, WRD.,
TAMBARAPARANI BASIN CIRCLE, TIRUNELVELI – 2.**

- Name of work : Improvements to Thalakulam Anicut and Manavalakurichi Big Tank in Manavalakurichi village of kalkulam Taluk in Kanyakumari District
- Last date for receipt of tender : **28.07.2022 upto 3.00 P.M**
- Date and time of opening : **28.07.2022 upto 3.30 P.M**
- E.M.D. to be remitted : **Rs.47,000/-(Rupees Forty seven thousand only) (Including the Goods and Services Tax (GST) Amount)**
- Mode of E.M.D. to be remitted : In the shape of challan, deposit at call receipt, Demand Draft of the Nationalised and Scheduled banks drawn in favour of the Executive Engineer concerned and National Saving Scrips / Deposits / NSC / KVP issued by Accounts of Postal Department should be duly pledged in favour of the **Executive Engineer, PWD/WRD., Kodayar Basin Division, Nagercoil** Indira vikas Patras are acceptable
- The tenderer should write in the back of the Indira Vikas Patra, his name and address. He should also give an undertaking to the Executive Engineer in writing that the Indira Vikas Patras bearing relevant register number are submitted as E.M.D.

Note:-

1. The tender and E.M.D. should be enclosed in separate covers, both the covers should then be submitted in a common sealed cover. All the three covers should be sealed. Tenders not submitted in sealed cover will be summarily rejected.
2. The rate in words and figures for each item of schedule should be furnished by the tenderer without fail in appropriate columns. Corrections scriblings, overwriting and erasing (should be avoided as far as possible) should be attested by the contractor.
3. The total value of each item of work should be worked out and entered in the amount column. 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 quantity of work to be done under the item.
4. 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.

FOR SPECIAL ATTENTION OF THE TENDERER

14. Proof of registration in PWD as a contractor shall be attached with the tender.
2. Current Income Tax clearance certificate shall be enclosed with the tender.
3. Sales Tax Registration Number should be furnished and Sales Tax clearance certificate should also be produced before finalisation of contract.
4. E.M.D. will be accepted in the shape of Challan, Deposit at call receipt, Demand Draft of the Nationalised and Scheduled banks drawn in the name of Executive Engineers concerned and National Saving Scrip / Deposit / Accounts of Postal Department pledged in favour of the Executive Engineer concerned. Indra vikas patras are acceptable. The tenderer should write in the back of Indra vikas Patra his name and address. He should also give an undertaking to the Executive Engineer in writing that the Indra vikas patras bearing relevant register numbers are submitted as E.M.D. No other mode of payment will be accepted.
5. The successful tenderer should convert the E.M.D. already deposited and additional security deposit if any required for the fulfilment of contract into National Savings Certificates / Accounts Pledged in favour of the Executive Engineer concerned.
6. The following particulars shall also be furnished by the Contractor along with the tender.
 - a) List of details of works executed by the contractor with their value.
 - b) A list of details of work under execution by the contractor with their values.
 - c) Annual turnover of the last Three years (necessary certificate to the effect issued by the respective bank shall be attached)
7. The lowest tenderer when informed that his tender is under consideration shall have to furnish PERT CHART in the proper form within a week from the date of receipt of letter calling for PERT CHART. The PERT CHART should conform to the department time schedule for the completion of the work furnished in the tender notice. If the PERT CHART is not received within a week from the date of communication, his tender will not be considered.
8. The tender documents will be issued to the contractors registered in Public Works Department in the appropriate class.

SPECIAL INSTRUCTIONS TO THE TENDERERS

1. The Tenderers should carefully go through the tender schedule and quote their rates for all items.
2. The rates should be filled in neatly in figures and in words and taking into account the metric units specified in the tender. Scriblings, overwriting and erasing should be avoided as far as possible.
3. The amount of each item of work should be worked out. Proper care must be taken in working out the amount 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.
4. The total for each page should be arrived at and, carried out to every page and the grand total value of work should be worked out and shown at the end.
5. The tender should be submitted along with a covering letter giving full details, as called for in the tender notice together with the copy of letter registering them into the appropriate class.
6. In case the tenderers who are eligible for concessional Earnest Money Deposit and accordingly they should furnish the reference No. And date in which the concession was granted to them, a copy of the aforesaid reference may be enclosed along with the tender for ready reference.
7. Income Tax clearance certificate for the current year should be submitted along with the tender or the tender in which the Income Tax Clearance certificate for the current year was submitted to this office should be specified.
8. Details of previous work done by the Tenderers covering the cost of work, the agreement, No. Date, department in which the work was carried out, etc., should be furnished so as to assess the previous experience of the tenderers. Year wise details should be furnished so as to see these tenderers have minimum experience of major works.
9. List of various machinery and other equipments at the tenderers disposal for use in the execution of the work, should be furnished.
10. The TENDER form should be filled in all the columns while submitting the tender. The tenders submitted without filling up the tender form are liable to be rejected.
11. The tender must be submitted in a sealed fool scape cover duly signed all the conditions and all the pages.

Sd/ M.Sugumarr
Superintending Engineer WRD.(i/c)
Tambaraparani Basin Circle,
Tirunelveli – 2.

APPENDIX – 1

TENDER NOTICE

(As amended in G.O. Ms. No.618/PW dated 30.04.85)

14. On behalf of the Governor of Tamilnadu, Tenders will be received by the Superintending Engineer, WRD., Thambaraparani Basin Circle, Tirunelveli-2 at his office **upto 3.00 PM on 28.07.2022** for the work of (Name of work) **“Improvements to Thalakulam Anicut and Manavalakurichi Big Tank in Manavalakurichi village of kalkulam Taluk in Kanyakumari District”**
- 1.1 The tenders should be in the prescribed form obtainable from the Superintending Engineer's Office, WRD/PWD, Thambaraparani Basin Circle, Tirunelveli – 2. The tenders will be opened by the Superintending Engineer at 3.30 PM on the same day at the place above mentioned.
- 1.2 The tenderers or their 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 finds it inconvenient to be present at the time, then in such a 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.
2. Tenders must be submitted in sealed covers and should be addressed to the Superintending Engineer, WRD, Thambaraparani Basin Circle, Tirunelveli – 2, the name of the tenderer and 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 firm it shall be signed with the co partnership, name by a member of the firm who shall also sign with his 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 authorised officer who shall produce with his tender, satisfactory evidence of his authorisation. Such tendering corporation may be required, before the contract is executed, to furnish evidence of its corporate existence.
3. Each tenderer must also send a certificate of Income Tax Verification from the appropriate Income Tax authority in the form prescribed therefor. The Certificate will be valid for one year from the date of issue for all tenders submitted during the period.
- 3.1 In the case of proprietary or partner firm it will be necessary to produce the certificate above mentioned for the proprietor or proprietors and for each of the partners as the case may be.

- 3.2 If the tenderer is a registered Public Works Department Contractor and if a certificate for the current year had already been produced by him during the calendar 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 above mentioned will be summarily rejected.
4. Each tenderer must pay as Earnest Money, a sum of **Rs.47,000/-(Rupees Forty seven thousand only) (Including the Goods and Services Tax (GST) Amount)** either in the form of N.S.C. pledged in favour of the **Executive Engineer, WRD/PWD, Kodayar Basin Division, Nagercoil** or in any other form as may be approved by the State Government from time to time as per Para 155 of T.N.PW.D. Code. This E.M.D. 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 opening of price tender whichever is earlier. The refund will be authorised by the Superintending Engineer / Executive Engineer. The E.M.D. will not be received in cash or currency notes by the PWD officers.
- a) The EMD will not carry any interest. It will be dealt with as provided in the tender.
 - b) 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 Scrip. Deposits account in lieu of other mode of payment made for EMD before acceptance of the tender.
5. The tender will remain valid for a period of three calendar months (Ninety days) from the last date of receipt of tender. The validity period can be extended further if the contractor gives his consent in writing specifying the period of extension.
- i) The tenderer whose tender is under consideration, shall attend the Superintending Engineer's office before the end of the period specified by written intimation to him. In case, the tenderer fails to attend the office before the end of the specified period, his tender will not be considered. He shall forthwith upon intimation being given to him of acceptance of his tender, by the officer duly authorised in his behalf under article 299 (1) of the constitution hereinafter called "The accepting authority," make security deposit of 2% of the value of contract in one of the forms prescribed in Tamilnadu Public Works Account Code (ie) by taking into account of the amount of EMD already deposited with the tender it would be sufficient to pay the balance amount to make up the 2% of the value of contract for the purpose of Security deposit. The security deposit together with Earnest Money Deposit and the amount withheld according to clause 64-1 of General conditions of contract shall be retained as Security for the fulfilment of contract. If a cash Security Deposit is made by the contractor, he shall follow the procedure laid down in the proceeding

paragraph for payment of Earnest Money Deposit and such deposit shall not bear interest. On evaluation of tender if it is found that if 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 estimated 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.

- ii) An additional security deposit of 1% of the value of the contract in one of the forms prescribed above will be remitted by the successful tenderer, if called for by the tender finalising authority.
 - iii) On receipt of written communication of acceptance of tender, if the tenderer fails to pay the requisite security deposit within the period specified in the written communication or backs out from the tender or withdraws his tender, the Earnest Money Deposit shall be forfeited to the Government. If the contractor fails to carry out the contract, after paying requisite deposits, then he will be liable for the excess expenditure if any incurred to complete the work as contemplated in the General Conditions of Contract.
 - iv) It shall be expressly understood by the tenderer that on receipt of written communication of acceptance of tender by the tenderer there emerges a valid contract between the Governor of Tamilnadu and the tenderer, for execution of the work without any separate written agreement. For this purpose the tender documents i.e., tender notice, tender offered by the contractor, General Conditions of Contract, special conditions to the contract, correspondence, written communication of acceptance of tender etc., shall constitute a valid contract and that will be foundation of the rights of the both the parties to the contract. Provided that it shall be open to the accepting authority to insist execution of any written agreement by the tenderer, if administratively considered necessary or expedient.
6. The tenderer shall examine closely the Tamilnadu Building practice and also the General Conditions of contract contained therein, and sign the divisional office copy of the Tamilnadu Building Practice and its addenda volume in token of such study before submitting his tender unit rates, which shall be for finished work in situ. He shall also carefully study the drawing and additional specifications and all the documents connected with the contract. The Tamilnadu Building practice and other connected documents with the contract such as specifications, plans, descriptive specifications sheet regarding materials etc. can be seen at any time between 11.00 a.m. and 5.00 p.m. on office, days in the office of the Superintending Engineer WRO, PWD, Thambaraparani Basin Circle, Tirunelveli – 627 002.

A copy of the set of contract documents can be had in person from office of the Superintending Engineer, PWD/WRD., Thambaraparani Basin Circle, Tirunelveli – 2 on payment of **Rs.15,000/- + Rs.2700/-** for each set inclusive of **GST Tax** thereon.

7. The tenderers attention is directed to the requirement for materials under the clause “Materials and workmanship” in the General Conditions of contract. Materials conforming 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. The name of quarries and kiln etc. wherefrom certain materials are to be obtained will be given in the descriptive specification sheet. The best class of materials to be obtained from the quarries or other source defined shall be used on the work. In every case the materials must comply with the relevant standard specification. Samples of materials as called for in the standard specification or in the tender notice or as required by the Executive Engineer shall be submitted for Executive Engineer’s approval before the supply to site of work is begun.
- 8.1 The Government will not, however, after acceptance of contract rate pay any extra charges for lead or for any other reasons, in case the contractor is found later on to have misjudged the materials available. Attention of the contractor is directed to the “General Conditions of Contract” regarding payment of seigniorage tolls etc.
9. The tenderer’s particular attention is drawn to the sections and clauses in the General Conditions of Contract dealing with.
 1. Test, Inspection and rejection of defective materials and work.
 2. Carriage
 3. Construction plant
 4. Cleaning up during progress and for delivery
 5. Accidents
 6. Delays
 7. Particulars of payment.
- 9.1 The contractor should closely peruse all the specification clauses which govern the rates which he is tendering.
10. A Schedule of quantities accompanies this tender notice. It shall be definitely understood that the Government does not accept any responsibility for the correctness or completeness of this schedule and that this schedule is liable to alterations by omissions deduction or additions at the discretion of the Executive Engineer or the Superintending Engineer, 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 in the schedule and the rates should be in rupees and in sums of five paise. The rates should be written both in words and figures and the units words. The tenderer should also show the totals of each item and the grand total of the

whole contract and quote in the tender a lumpsum of which he will undertake to do the whole work subject to the conditions of contract such lumpsum agreeing with the total amount of Schedule A. The schedule accompanying the lumpsum tender shall be written legibly and free from erasures, overwrittings, or conversion of figures. Corrections, where unavoidable should be made by crossing out, initialling dating and rewriting.

11. Tenderers offering a percentage deduction from or increase on the estimate amount except in the case of tender for maintenance and repair works called for specifically under percentage rate tender system and those not submitted in proper form or in due time will be rejected.
12. The tenderer should work out his own rates, without reference being made to the Public Works Department schedule of rates or the public works department estimate. However in case of tenders called for under % rate tender system the tenderer should workout his own rate but quote his percentage rate above or below the total estimated cost of the work of the department indicated in the tender schedule.
13. The price at which and the sources from which certain particular materials shall be obtained by the contractor are given at the end of the schedule accompanying the tender form. Tenderers must accept the materials at these prices and shall quote their price for finished works accordingly. Notwithstanding any subsequent change in the market value for these materials, the charges to the contractor will remain as originally entered in the written contract. No centage or incidental charges will be borne by Government in connection with this supply.
14. The attention of the tenderer is directed to the contract requirements as to the time of beginning of work the rate of progress and the dates for the completion of the whole work and several parts. The following rate of progress and proportionate value of works done from time to time as will be indicated by the Executive Engineer's certificates of the value of work done will be required. Date of commencement of the programme will be the date on which the site (or Premises) is handed over to the contractor.

Period after date of commencement	Total percentage of work to be completed based on contract lumpsum amount
First Quarter	10%
Second Quarter	20%
Third Quarter	60%
Fourth Quarter	100%

Note : The period to be entered in Col. 1 for the purpose of following the rate of progress may be fixed by the Superintending Engineers or Executive Engineer to suit each case.

15. No part of the contract shall be sub-let without written permission of the Executive Engineer nor shall transfer be made by power of attorney, authorising others to receive payment on the contractor's behalf.
16. If further necessary information is required the Executive Engineer of the division will furnish such but it must be clearly understood that tenders must be received in order and according to instructions
17. The Superintending Engineer or other sanctioning authority reserves the right to reject any tender or all the tenders without assigning any reasons thereof
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 tenderers 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 works and paying extra attention to such works as may demand special attention (e.g.) reinforced concrete works etc.

The norms for the employment of technical Assistant and penalty for non-employment of such technical Assistant etc, is furnished in the format below

I. From one to Rs.5.00 lakhs	1. One Diploma Holder in Civil Engineering Or 2. Not less than one retired Junior Engineer
II. From Rs.5 to 10 lakhs	1. One B.E. (Civil) Or 2. Equivalent Degree Holder Or 3. Not less than one retired Sub Divisional Officer AEE/ADE Or 4. One Diploma Holder with three years experience
III. From Rs.10 to 25 lakhs	1. One B.E. (Civil) with 3 years experience plus one Diploma holder in Civil Engg. Or 2. Equivalent Degreeholder with 3 years experience plus one Diploma holder in Civil Engg. Or 3. Not less than one retired Sub Divisional Officer plus one Diplomaholder in Civil Engg. Or 4. Two Diploma holder in Civil Engineering with 3 and 5 years experience respectively.

IV. From Rs.25 to 50 lakhs	1. One B.E., Civil with 3 years experience plus two diploma holders in Civil Engg. Or 2. One B.E., (Civil) with 3 years experience plus two retired Junior Engineers. Or 3. Equivalent degreeholder with 3 years experience plus two Diploma holders in Civil Engineering or 2 retired Junior Engineers.
	Or 4. One retired sub Divisional Officers (AEE or ADE) plus two Diploma holders in Civil Engg. or one retired SDO (AEE or ADE) plus two retired Junior Engineers.
V. Above Rs.50 lakhs	To be examined in individual cases depending upon the nature of work and the technical skill involved and defined in the tender notice regarding the No. of qualified technical personnel to be employed by the contractor.

- VI. A penalty of Rs.2000/- per month for Diploma holder and Rs.5,000/- per month for Degree holder will be levied in case of default on the part of contractors in the norms mentioned above.
- VII. The employment of Technical Assistant should be based only on the value of contract. Engineers with Mechanical Engineering qualification and retired from Civil Engineering Departments are also suitable to supervise the Civil Engineering works because of their experience in Civil Engineering field.
- VIII. 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 in the opinion of the Executive Engineer, the employment of Technical Assistant is not required for the due fulfilment of the Contract.
- IX. A movement register should be opened and maintained for Technical Assistants employed by the Contractor or for the technically qualified contractor. The Technical Assistant or Technically qualified Contractor should note the arrival and the departure timings everyday along with their initials. Such register should be produced during inspection of the Inspecting Officers.
- X. Without prejudice to the generality of the above clause the contractor shall during the currency of the contract, when called upon by the Engineer-in-charge engage and also ensure engagement by the Sub Contractors and others employed by the contractor in connection with the work, such number of apprentices in the category mentioned, below and for such period, as may be required by the Engineer-in-charge. The Contractor shall train them as required under the Apprentices Act 1961 and rules made thereunder 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 that said act.

19. Tenderers who have not already registered themselves as PWD contractors shall furnish evidence of good record and capacity to do works.
20. A tenderer submitting a tender which the tender accepting authority considers excessive and / or indicative of the insufficient knowledge of current prices or definite attempt at profiteering will render him liable to be 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 for materials price permissible for the tenderer to charge a private purchaser under the provision of clauses 8 of hoarding and profiting prevention ordinance 1943 as amended from time to time and on similar principles in regard to labour and supervision in the construction.
21. The contractor should offer employment to ex-toddy tappers as far as possible.

Note : This paragraph should be scored out if the cost of work involved is less than Rs.10,000/-.

22. The Contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and orders issued hereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the competent authorities, may at their discretion, 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 provisions 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 Tamilnadu. The contractor shall train them as required under the Apprentices Act 1961, and the rules made hereunder and shall be responsible for all obligations of the employer under the said Act including the liability to make payments to the apprentices as required under the said Act.

Value of Contract	Category	No. to be appointed
Rs.1.00 lakh and upto Rs.3.00 lakh	1. Building Constructor	1
	2. Brick Layer	1
Above Rs.3.00 lakh and upto Rs.10.00	1. Building Constructor	1
	2. Brick layer	1
	3. Diploma holder in Civil Engineering	1
Above Rs.10.00 lakh and upto Rs.50.00 lakh	1. Building 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 Adviser, a certificate to the effect that “That contractor had discharged his 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.

23. In the case of contracts for construction of building either permanent or semi permanent buildings, a sum equivalent to 2½% of the value of work done will be retained with Government for a period of two years reckoned from the date of completion of the work in order to enable the departmental officers to watch the effect of all seasons on the work done by the contractor. The amount so retained with the Government will be refunded only on the expiry of two year period referred to above and on execution of Indemnity bond by the contractor for a further period of three years. The contractor shall be liable to set right all the defects arising out of his faulty execution or sub standard work noticed during the above five years period at his cost.

24. A statement giving particulars of equipment resources that will be put at the disposal of the work under the following classification should accompany the tender.

- a. Equipment (Transport of materials viz. lorries and carts, concrete mixers)
- b. Organisation
 - (i) Technical
 - (ii) Unskilled

25. The tender of the contractor who agrees to employ the maximum No. of Ex Service Men (No. to be specified in the tender) will receive preferential consideration. The tenderers are requested to report on their covering letter.

26. The Superintending Engineer reserves to himself the right of allotting the different sub works to the different contractors or to one and the same contractor as he may decide after receipt of tenders.

27. All rates quoted in the tender shall be inclusive of Vat Tax, payable under the Vat Tax act as amended from time to time (including amendment Act 38/34) and that the contractor is responsible to file the Sales Tax return and pay the amount of Tax as amended by Commercial Tax Department. No request for payment of Sales Tax separately in addition to the tendered rates due to any plea of subsequent levy or increase in tax will be entertained vide clause 38(2) of general conditions of contract. (Act No.150F 1999).

27F. Deduction of tax at source in works contract (1) not with standing anything contained in this Act. Every person responsible for paying any sum to any dealer for execution of works contract shall at the time of payment of such sum, deduct an amount calculated at the following rate namely :-

- (i) Civil Works Contract } The rate of deduction is 1% when contract payments are made to individual and HUF and at 2% from payments made to others. No surcharge and education cess are required to be charged on TDS amount, from 01.10.2009 onwards. vide Income tax Dept. letter No.10/CIT(TDS/2009-10 DT.10.7.2009

Provided that no deduction under sub-section (i) shall be made where.

- (a) No transfer of property in goods (whether as goods as or in some other form) is involved in the execution of such works contract.

Or

- (b) The dealer produces a certificate from the assessing authority concerned that he has no liability to pay or has paid the tax under section 3-B or section 7-C.

Or

- (c) Declared goods are purchased from a registered dealer within the State and used in the execution of works contract in the same form in which such goods were purchased.

Provided further that no such deduction shall be made under this section where the amount or the aggregate of the amount paid or credited or likely to be paid or credited during the year by such person to the dealer for execution of the works contract including civil works contract does not or is not likely to, exceed one lakh rupees.

28. No seigniorage shall be charged where due for materials quarried from the PWD or other Government quarries. Assistance as necessary shall be given to the contractor by the Department to obtain access to quarries approved by the Executive Engineer. No plot rent will be charged for materials stocked on Government land during the course of construction provided all such materials are removed within one month after the work is completed.
29. Seigniorage or charges due for the use of private quarries and private land shall be paid by the contractor.

Sd/ M.Sugumarr
Superintending Engineer WRD.(i/c)
Tambaraparani Basin Circle,
Tirunelveli - 2.

II. TENDER

To

His Excellency the Governor of Tamilnadu,
Represented by the
Superintending Engineer, WRD
Thambaraparani Basin Circle, Tirunelveli – 627 002.

Sir,

1. I/We do hereby and if this tender be accepted undertake to execute the following work viz, as shown in the drawings and described in the specification deposited in the office of the Circle / Division with such variations by way of alterations or additions to and omission from the said works and method of payment as are provided for in the conditions of contract for the sum of Rupees (in figures and words)

or such other sum as may be arrived at under the clause of the General Conditions of Contract relating to “Payment on lumpsum basis or by final measurements at unit prices”

2. I/We have also completed the priced list or items in schedule “A” annexed (in words and figures) for which I/We agree to execute the work and receive payment on measured quantities as per the General Conditions of 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 instructions in the tender notice and have read the Tamilnadu Building Practice and the General Conditions of Contract there-in and the Tamilnadu Building Practice addenda volume, and that I/We have made such examination of the contract documents and of the plans, specifications, quantities and of the location, where the said work is to be done and such investigation of the work required to be done and in regard to the materials required to be furnished as to enable to thoroughly understand the intention of the same and requirement, covenants, stipulations and restrictions contained in the contract and in the said plans and specification, and distinctly agree that I/We will not hereafter make any claim or demand upon the Government based upon or arising out of any alleged misunderstanding or misconception or mistake on my/our part of the said requirements covenants stipulations restrictions and conditions.
4. I / We enclose an income tax verification certificate.

I / We being a registered PWD contractor have already produced an Income Tax verification certificate during the current calendar year in respect of (Here particulars of the previous occasions in which the certificate was produced should be given) The legal address of the contractors for service of all letters and notices will be as follows.

5. (i) (a) I/We enclose herewith a challan for the payment of the sum of Rs..... (to be entered in words and figures) as Earnest Money not to bear interest.
5. (i) (b) I/We have paid Rs..... (Rupees as against the E.M.D. of Rs..... (Rupees.....) only. Since I am/We eligible to pay the EMD, at concessional rates.
5. (i) (c) in lieu of a cash
I / We have enclosed a bearing No..... Date issued by for a value of Rs..... drawn/enclosed/pledged in favour of the Executive Engineer, PWD
5. (i) (d) I am / We are and hence exempted from payment of EMD
6. If my/our 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 tender is accepted, the Earnest Money shall be retained by the Government as security for the due fulfilment of contract. If upon intimations being given to me/us by the authority authorised by the Governor under article 299 (1) of the constitution (hereinafter called the accepting authority) of acceptance of tender (I/We) fail to make the additional security Deposit, then I/We agree to the forfeiture of Earnest Money Deposit. Any notice required to be served on me or us hereunder shall be sufficiently served on me or us if delivered to me or us personally or forwarded to me or us by post (Registered or ordinary) or left at my or our address given herein. Such notice shall, if sent by post be deemed to have been served on me or us at the time when in due course of post it would be delivered at the address to which it is 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 Tamilnadu and the tender documents i.e. Tender notice tender with schedules General Conditions of Contract and special conditions of the tender negotiation letters, communications of acceptance of tenders, shall constitute a contract for this purpose and be the foundation of rights of both the parties provided that it shall be open to accepting to insist on execution of any written Agreement by the tenderer, if administratively considered necessary or expedient.

8. I / We have also signed the copy of Tamilnadu Building practice and
..... addenda volume, thereto maintained in the Division office acknowledgement of being bound by all conditions of the clauses of the General Conditions of Contract and all specifications for item of works described by a specification number in schedule A.
9. In consideration of the payment of Rupees or such of the sum as may be arrived at under the clause of the General conditions of contract, relating to payment of lump sum basis or by final measurement at unit prices I/We agree subject to said conditions to execute and complete the works shown upon the said drawing serially from number **1 to 6 (Six)** inclusive (schedule – B) and described in the specifications (schedule – C) and to the extent of probable quantities shown in (schedule A) with such variations by way of alterations additions to or deductions from the said work and method of payment therefore as are provided for in the said conditions.
10. (i) The term “Executive Engineer” in the said condition shall mean the Public Works Department officer in charge of the Division having jurisdiction for the time being over the work who shall be competent to exercise all the powers and privileges reserved herein in 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 articles 299 (1) of the constitution.
- (ii) In the event of work being transferred to any other circle / division / sub-division, the Superintending Engineer / Executive Engineer / Assistant Executive Engineer who is in charge of the work will exercise the powers and privileges reserved in favour of Government.
11. I/We agree that the time shall be considered as the essence of the contract and I/We hereby agree to commence the work as soon as this contract is accepted by the competent authority as defined by the Tamilnadu Public Works Department code and the site (or premises) is handed over to me/us as provided for in the said conditions and agree to complete the work within **12 (Twelve) months (including rainy season)** from the date of such handing over of the site (or premises) and to show progress as defined in the tabular statement “rate of progress” subject nevertheless to the provisions for extension of time contained in clause 56 of the general conditions of contract appended to the Tamilnadu Building Practice.

12. I/We agree that upon the terms and conditions of this contract being fulfilled and performed to the satisfaction of Executive Engineer, the security deposited by me/us as herein before recited or such portions thereof as I/We may be entitled to under the said conditions be paid back to me/us provided in clause 64 of the General Conditions of Contract.
13. I am / we are professionally qualified and my/our qualification is 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 (eg.,) reinforced cement concrete.

Sl. No.	Name of technical staff proposed to be employed	Qualification	Experience
1.			
2.			

14. I / We agree that the arbitrator for fulfilling the duties set forth in the arbitration clause of the General conditions of contract shall be:

The Superintending Engineer, WRO, PWD, Vaippar Basin Circle, Vairudhunagar in case, the value of claim does not exceed Rs.50,000/-.

Superintending Engineer,WRD., Signature of the contractor with date

15. On behalf of the Government of Tamilnadu and as duly authorized by the Governor under article 299 (1) of the constitution the above tender for a value of Rs...../- (Rupees accepted on this day of

Signature and Designation

Signature of Witness in full
and address with name in block letters

SCHEDULE A

(Schedule of Rates and Approximate Quantities)

- A. The quantities here given are those upon which the lump sum tender cost of the work is based but they are subject to alterations, omissions, deductions 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 rates noted below are those governing payment of extras or deductions for omissions according to the conditions of the contract as set forth in the General Conditions of Contract in Tamilnadu Building Practice and other conditions specifications of this contract.
- B. It is to be expressly understood that the measured work is to be taken nett (Not with standing any custom or practice to the contrary) according to the actual quantities when in place and finished according to the drawings 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 therewith. The rates quoted are for works in situ complete in every respect.

Item No.	Probable quantities	Class and Description of work	TNBP No. or other special specification No. if any	Rate Words Figure	Units words	Amt. figures
..... VIDE SHEETS ATTACHED SEPARATELY						

SCHEDULE B

LIST OF DRAWINGS

Note : All drawings to be signed by the contractors as well as the officer entering into the contract

Sl. No.	Drawing No.	Description
(1)	(2)	(3)
..... VIDE SHEETS ATTACHED SEPARATELY		

SUPPLEMENTAL LIST

As referred to in the specification including the General Conditions of contract in Tamilnadu Building practice.

Sl. No.	Drawing No.	Description	Date on which the drawing was supplied
(1)	(2)	(3)	(4)
..... VIDE SHEETS ATTACHED SEPARATELY			

SCHEDULE C

List of specification for the various items of works supplementing those described in Schedule A by standard specification numbers.

- I. The Contractor shall employ the following technical staff for supervising the work and shall see that one of them always at site during working hours personally checking all items of work and paying extra attention to such works as may demand special attentions eg., reinforced concrete works etc.

SI No.	Name of the members of the Technical Staff to be employed	Qualifications	Experience
1.	Civil Engineers B.E., - 1 No.	B.E., (Civil)	5 Years
2.	Civil Engineers (Diploma) – 3 Nos.	D.C.E.,	3 Years

Note :

1. 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 an undertaking to employ qualified men it should be scored out.
2. A penalty of Rs.2000/- per month for Diploma Holder and Rs.5000/- per month for Degree Holder is levied in case of default on the part of the contractors as per norms fixed by the Government for employment of Technical Assistant as per G.O.Ms.No.181 PWD dated.16.05.2003.
3. The employment of Technical Assistant should be based only on the value of contract Engineers with Mechanical Engineering Departments are also suitable to supervise the Civil Engineering works because of their experience in Civil Engineering Field.
4. In case of the contractor who is professionally qualified is not in a position to remain always at the site of the work during working hours personally checking all items of the work and paying extra attention to work as may demand special attention (eg.,) R.C.C. work etc, he should employ technically qualified men as prescribed for the works.
5. A movement register should be maintained for Technical Assistants employed by the Contractor or for the technically qualified Contractor. The Technical Assistants or Technically qualified contractors should note the arrival and the departure timings every day along with their initials. Such register should be produced during inspection of the Inspecting Officer.
6. It will not be incumbent on the contractor to employ Technical Assistants when the work is kept in abeyance due to valid reasons and if during such period in the opinion of the Executive Engineer, the employment of Technical Assistants is not required for the due fulfilment of the contract.

II TENDER

1. Tender with tampered seals will not be accepted.
2. Tender in which the rates are not written in words will generally be rejected. In case of any discrepancy while expressing rates in words, the rate whichever is advantageous to Government will only be taken into account. Tenders containing overwriting, corrections which are not attested by the tenderers will be liable for rejection.

3. Percentage Tender Conditions

On evaluation of Tender if it is found that if 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 E.M.D. furnished”,

(As per the office of Engineer-in-Chief, WRO and Chief Engineer (General), PWD., Chepauk, Chennai – 5. Circular Memo No.H.D.O (A) / 65964 / 99.1, dated.02.12.1999)

(III) EXECUTION OF WORK

1. The entire work should be carried out as per specifications in the National Buildings Code and Tamilnadu Building Practice.
2. The contractor shall make his own arrangements for clean and fresh water and shall meet all charges there for. The special attention of the contractor is drawn to clause 36 of general conditions of contract regarding water and lighting.
3. The rates specified in schedule for the different items of works are for the finished works.
4. The contractor's rates are inclusive of Sales Tax payable by the contractor to Government as per the Tamilnadu General Sales Tax of 1939 as amended from time to time. No enhanced rates will be paid to the contractor for any upward revision of Sales Tax during the currency of the contract.

5. All minor bailing and pumping incidental on the work shall be borne by the contractor. Where heavy pumping is required the bailing will be done departmentally. If the contractor is asked to do, the charges will be paid as per actual plus 10%. The Executive Engineer in charge of the work will be the final authority to decide whether pumping is minor or heavy.
6. The payment for Earthwork will be made for embankment excluding the quantity of pebbles, boulders and other such materials which shall not normally be used along with the earth for formation of bund.
7. The cement concrete for re-inforced cement concrete and all types of cement mortar works shall be machine mixed.
8. The lime mortar shall be ground in mortar mill as T.N.B.P.
9. More than 90cm height of concrete should not be laid in one day. At the place where the concrete is stopped, it should end in the form of steps so as to facilitate receiving of the next length of concrete. Once a height of 90cm of concrete is laid, it should be cured for three days before further concrete is laid.
10. The teakwood or country wood (Karimarudhu or Pillaimaradu) shall be of best quality and shall be subject to inspection and approval by Executive Engineer before use on the work.
11. **PAINTING :** Paint used for the work shall be of approved brand and colour.
12. **PLASTERING:** All external corners “**TEE**” beam edges and doors and windows opening etc., shall be finished truly vertical or horizontal as the case may be. The rate for plastering shall include the cost of finishing. No separate extra for finishing the corners edges of beams etc. will be paid.
13. The planks for form work and centering for reinforced cement concrete works shall be well seasoned timber approved by the Executive Engineer according to clause 8 or T.N.B.P. No.30. They must be made smooth and perfectly level at top so as to give smooth and even finish to the reinforced cement concrete ceilings. Alternatively, the contractor may use steel sheets over wooden frames provided the required finish to the underside of the slab is obtained. Mango planks shall not be used under any circumstances. Centering and form works shall be provided to the extent and area ordered by the Executive Engineer during the execution.
14. The arrangements of steel rods for reinforcement for reinforced concrete works shall be in accordance with working drawing supplied.
15. The Executive Engineer will be at liberty to carryout any portion of the work at any time either departmentally or through any other agency in the interest of Government without assigning any reasons therefore to the contractor who is actually doing the work. The contractor is not entitled for any compensation on account of the same. The contract will be only subject to this condition.

16. In the event of the work being transferred to any of the Circle / Division / Sub Division the Superintending Engineer / Executive Engineer / Assistant Executive Engineer who is in charge of the Circle / Division / Sub Division having jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favour of the Government.
17. Earth Work: Each and every borrow pit will be individually marked by the Section Officer and in urgent cases by the Maistries in charge of the work subject to the approval of the Section Officer. Earth should be removed only from the places marked and to the depth ordered by the above officer.
18.
 - a) The contractor should locate pits for earth work in open places away from the old pits.
 - b) No. excavation shall be made inside of the tank bund nearer to the toe of the slope than twice the height of the bund at the point not on the outside of the tank bund than three times in the height of the bund, unless specifically approved by the Executive Engineer.
19. The contractor should not enter any private lands for removal of earth there from without the prior written consent of the landowners. If he does unauthorisidelly, the contractor alone will be held fully responsible for consequences arising there for.
20. No borrow pit should be less than 45 cm deep. Gap of 90 cm should be allowed between any two consecutive pits. When the pits are excavated for more than 2 m in width longitudinal thandus should be provided.
21. The contractor should not put in borrow pits for removal of earth on a haphazard / fashion and they should be put in the place and in such a manner as may be directed by the officers in charge of the work. If any such unauthorised pits are put, the contractor will have to fill up the pits at his own cost.
22. A deduction of 20% and 10% will be made in the quantity of earth work measured for thandus and muttus respectively and the amount on account of this deduction will be paid after satisfactory removal of Thandus and muttus. If thandus and muttus are not removed within a month from the date of check measurement by the Sub Divisional Officer or Executive Engineer, or within the period fixed at the discretion of the Executive Engineer the 20% and 10% deductions will be final and will not be revoked.
23. The contractor shall arrange for sectioning of the bank immediately after the work in each reach is completed. The final sectioning must be completed within 15 days after completion of the work in the entire reach.

24. Payment for earthwork for New Bank.

Payment for earthwork for New Bank will be made as follows

- | | | |
|-------------------------------------------------------------|--|---------------------|
| i) Quantity as per pit measurement | | |
| ii) Quantity of New bank after Consolidation based on level | | whichever is lesser |

IV. SUPPLY OF MATERIALS

1. The contractor's rate for the different items of work involving the use of cement is inclusive of the cost of cement.
2. The cement required for the work will be supplied by the contractor himself.
3. The contractor should make his own arrangement at his own cost to take delivery of the cement from the dealer and to convey the same to his store shed at site of work. The stock of cement with contractors should be accessible to the Departmental Officers for verification at any time.
4. To be procured from authorized stockists and dealers with details of printing in the cement bag as approved by ISI (Pozzolona Cement printed in red colour and other cement bags including OPC in black colour.)
5. All cement quantity should be supplied in paper / jute bags only at site of work.
6. The certificate to be obtained from Government Institutions and Quasi Government and Government approved Institutions only by mentioning the name of work and period of contract and should not be from Private Institutions.
7. The minimum content of cement is to be ensured in use for works as specified in IS: 456-1978 Table 19.

8.(i) **TABLE – PHYSICAL CHARACTERISTIC REQUIREMENTS OF CEMENT (OPC)**

Sl. No.	Characteristics	Requirements		
		33 Grade IS: 269-1989	43 Grade IS: 8112-1989	53 Grade IS: 12269-1989
1.	Minimum compressive strength in N/Sq. mm 3 days 7 days 28 days	16 22 33	23 33 43	27 37 53
2.	Fineness (minimum) (sq.m/kg)	225	225	225
3.	Setting Time (minutes) Initial – (minimum) Final (maximum)	30 600	30 600	30 600
4.	Soundness, Expansion LeChatlier – (maximum) mm Autoclave Test (maximum) %	10 0.80	10 0.80	10 0.80

8. (ii). Cement Conditions: The Procurement of cement of required specifications for the works subject to the followings.
- A. The Contractor shall procure cement required for the works only from reputed cement factories (main producer of their authorised agents, manufacturing cement to ISI standard) acceptable to the Engineer-in-charge. The contractor shall be required to furnish to the Engineer-in-charge bills of payment and cost certificates issued by the manufactures or their authorised agents to authenticate procurement of quality cement from the approved cement factory.
 - B. The contractor shall procure in standard packing of 50 Kg. per bearing manufactures. The contractor shall make necessary arrangement at his own cost to the satisfaction of Engineer-in-charge for actual weightment of random sample from the available stock and shall conform with the specification laid down by the Indian Standards Institution as the case may be. Cement shall be got tested for all the tests including through destructive and non-destructive test materials etc, as directed by the Engineer-in-charge in advance before the use of cement bags. In case test results indicate that the cement arranged by the contractor does not conform to the relevant code, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a day's time of written order from the Engineer-in-charge to do so.
 - C. The employer will furnish air recraing agents and admixtures required to the contractor free of cost at the employer stores. The use of such admixtures and agents shall be made as per the instructions of the Engineer-in-charge. The cost of Cartage/Storage, handling, batching mixing shall be borne by the Contractor and shall be included by him to unit officers tendered for concrete.
 - D. The cement shall be brought at site in bulk of approximately 50 tonnes or as decided by the Engineer-in-charge for large works.
 - E. The Cement godown of the capacity to store a minimum of 1000 bags of cement shall be constructed by the Contractor at site of work, for which no extra payment shall be made. The Contractor shall facilitate inspection of the Cement godown by the Engineer-in-charge at any time.
 - F. The contractor shall further at all times satisfy the Engineer-in-charge on demand by production of records and test book or by submission of returns and other proofs as directed that the cement is being used as tested and approved by the Engineer-in-charge for the purpose and the Contractor shall at all times, keeps his record upto date and enable the Engineers-in-charge to apply such checks as he may desire.

- G. Cement which has been unduly long in storage with the contractor or alternatively has deteriorated due to inadequate storage and thus become unfit for use on the works will be rejected by the Department and no claim will be entertained. The contractor shall forth with remove from the work area any cement the Engineer-in-charge may disallow for use of work and replace it by cement complying with the relevant Indian Standards.
9. Steel required for the work will be supplied by the Contractor himself.
10. No separate charges will be paid to the contractor for straightening of mild steel rods. The contractor shall make his own arrangements for cutting to sizes, bending and tying grills etc., Mild steel rods, should be cut and placed as reinforcements with proper care according to the available rods at site so as to ensure minimum possible wastage.
11. To be procured from authorised dealers and test certificate for strength as well as for unit weight to be produced before use in order to ascertain the size of rod and quantum of steel actually used in the work.
12. Excessively rusted steel rods should be rejected.
13. To be delivered at site of work and to be under the custody of contractor only.
14. Use of steel rods shall conform to the structural designs approved for the work.
15. Steel supplied shall conform to standard specification specified in Table: 16 as IS: 456-1978 as detailed below:
- | | | |
|----------------|---|--------------------------------------|
| a) Mild Steel | - | Grade I of IS : 432 / Part I / 1966. |
| b) HYSD bars | - | IS : 1786-1985 |
| c) Cold worked | - | IS : 786-1979 (Grade Fe 415) |
16. Steel manufactured from the waste steel through the process of re-rolling shall be rejected since guarantee for the strength and quality is not certified by the authorized dealer or by the manufacturers.

V. CENTERING WORKS

17. Payments for centering works for all R.C.C. items shall be made only after concrete is laid, even though separate rate is called for, for centering work in the Schedule.
18. The contractor will be held responsible for the proper safe custody of all the departmental materials which are handed over to the contractor until they are finally used on the work or taken over by the Department.

19. The shed for storing materials should be put up by the contractor at his own cost.

The cut bits in MS rods and RTS bars shall not be taken from the contractor.

The contractor shall be responsible for the safe custody and storage of the materials under dry conditions and the place near the work spot approved by the Executive Engineer.

The contractor shall see that only the required quantities of materials are got issued. Any such materials remaining unused and in perfectly good conditions at the time of completion of work or termination of contract shall be returned to the Engineer-in-charge, at a place as directed by him or by a notice in writing if so required. Credit for such materials will be given at the 100/105 of issue rate. The returning of the surplus materials from and to the stores where from the materials were issued is the responsibility of the contractor.

**VI. SPECIAL CONDITIONS FOR EARTHWORK EXCAVATION IN
HARD ROCK REQUIRING BLASTING**

In the case of earthwork excavation in hard rock requiring blasting the tenderer should observe the following conditions.

- a) 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 is mixed upon ground, the two kinds of rocks shall be stacked separately for measurement. The net measurement of the two kinds of rock shall be arrived at by applying 40% deduction for voids the total of the net measurement of two kinds of rock shall be compared with the pre-measured quantity and only the lesser of the two shall be paid for. If the total net measurement of the two kinds of rock exceeds (or) fails short of the measurements of mixture, the volume of mixture proposed to be parts shall be apportioned in the proportion of the net actual measurements of stacks of the two kinds of rocks.

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 I) 1969 method of measurement of buildings and Civil Engineering of work. Part I "Earthwork" may be referred as and when necessary.

GENERAL CONDITIONS OF CONTRACT

A. PREFACE

1. Intent and reference to Tamilnadu Building Practice

It is intended by this Tamilnadu Building 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 the abbreviation "T.N.B.P. No." or "T.N.B.P." is used in the specifications or in estimates or contract documents, it shall refer to the relevant specification in the Tamilnadu Building Practice.

1.3 The abbreviation "I.S." shall mean "Indian Standard"

2. Applicability by the Tamilnadu 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 Tamilnadu Building Practice Number (T.N.B.P. No.) The fact that the item is defined as specification, shall mean that the contractor is to execute the work according to 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 be 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 and shall form an inseparable conditions of contract and it shall not be necessary to append a copy of the same to the agreement.

3. Contractor to sign in the Divisional (or the Sub Divisional) copy of the T.N.B.P.

3.1 Every contractor who executes work for the Public Works Department of the Highways and Rural Works Department shall carefully study the specification for all items of work which are included in the schedule for work to be done and his obligation under the general "Conditions Of Contract" which apply to all agreements, and he shall sign in the Divisional Office copy of the T.N.B.P. (or the Sub Divisional Office copy if so arranged by the Executive Engineer) as evidence that he 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 he accepts the conditions of contract (which the specifications) as detailed in 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 alternations 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. Inter leaving correction slips will not be made for this 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 any common clauses in their specifications are grouped under one specification number with a "General" preface thereto and the sub specifications are therefore given an alphabetical affix.
5. Additions and alternations to the T.N.B.P.
- 5.1 Additions and alternations to the T.N.B.P. will be incorporated in the addenda volume as authorized by the Chief Engineer.
6. Power of Superintending Engineer and Executive Engineers to supplement or alter the T.N.B.P.
- 6.1 Superintending Engineer and Executive Engineer may alter the specifications for any particular contract 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 signature of the contractor. Similarly additional specification for items for which there are no standard specifications will be made by attachment to the contract documents of addendum specifications sheets bearing the signature of the Superintending Engineer or the Executive Engineer as the case may be and the signature of the contractor.

A-1 DEFINITIONS AND INTERPRETATIONS

7. Definition of terms
- 7.1 Wherever the words and expressions defined in this clause or pronouns used in their stead occur in contract documents (which includes T.N.B.P.) they shall have 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 way 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 particular persons firm or corporation with whom an agreement has been made by the Executive Engineer or higher authority as the case may be, for executing work defined in the concerned agreement, and for purpose of instructions regarding compliance with contract conditions, it shall include the contractor's authorised 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 be executed whether temporary or permanent and whether original, altered substituted, or additional or connected with the supply repairs carriage of tools and plants and supply or manufacture of other stores.

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

Note : The terms 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

Tenders shall, if required, present satisfactory evidence to the Executive Engineer that they have been regularly engaged in constructing such works, as they propose to execute and that are fully prepared with the necessary capital, machinery and materials to 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 Tenders should give 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 letter registered for acknowledgement of any notice, letter or other communication to the contractor shall be deemed sufficient service thereof upon the contractor in writing as may be 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 its contract conditions shall be deemed to preclude or 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 drawing in office and may or may not be the actual required for execution. The Executive Engineer does not expressly or by implication agrees 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 Tenders 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 at any time after the submission of their tender, dispute or complain of 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 consequence apply for extension of time for completion beyond the agreement date.
11. Approximate not to mean deviation from drawings and specification
- 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 lumpsum tenders.

C. DRAWINGS AND SPECIFICATIONS

13. Purpose

- 13.1 The contract drawing 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 such further drawings, 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 thereof, shall failing agreement, be settled by a 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 specification, or mentioned in the specifications and not shown in the drawings or any error discrepancy in drawings or specifications and obtain his orders thereon. Figure dimensions are to be taken and not those obtained from sealing 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 in the drawings and specifications, the contractor shall forthwith apply to the Executive Engineer for such further instructions, drawings or specification 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, omissions or additions

- 15.1 For all modification, omissions from or additions to the drawings and specification, the Executive Engineer will issue revised plans, or written instructions or both and no modifications, omissions or additions shall be made unless so authorised 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 annul those 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 within 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 Drawing and Specifications

16.1 One copy of the available drawings and specifications (apart from the T.N.B.P. a copy of which the contractor should purchase for his 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 drawing-No authority to the Contractor

17.1 No signed drawing shall be taken as in itself an order for variation, unless either it is entered in the agreement schedule of drawings under proper attestation of the contract or 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 specifications and schedule materials being obtained from sources approved by the Executive Engineer. The work "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 described 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 expense 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. Convention 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.

For example,

1:2 means 1 lime (or cement in accordance with context) and 2 crushed stone sand .

1:2:4 means 1 lime (or cement in accordance with the context) 2 crushed stone sand 4 broken stone (or other aggregate in accordance with the context)

20. Measurements and mixing

20.1 In the case of loose materials such as lime crushed stone sand , cement, broken stone, surkimortar, etc., the proportions demanded by the specifications must 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 will 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 less than that given in the Tamilnadu PWD, 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 reasons for variations from PWD Standard Data.

22. Layout of materials stacks

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, a 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 purpose therein specified.

23.2. Contractor liable for materials supplied by Government

24.1 The Contractor shall be responsible for all materials and other articles and the things which may be supplied by Government from the time he takes delivery 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 under 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 are 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 whichever is greater. The contractor will be informed in writing of this change and he should intimate in writing the rate which he demands for finished work in view of the fact that he is to use Government materials.

24.3 For any excess issue of cement beyond the allowable limit of 5 percent over the practical requirement of cement recovery shall be made at double the issue rate from contractor.

25. Test inspection and rejection of defective materials and works

25.1 The contractor shall provide proper facilities at all times 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 places 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 unusually 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 wrought materials by reasons of his having previously passed them in an unworked condition. Any portion of the work or materials rejected or pronounced to be 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, WRO, PWD, shall have power to employ and pay other persons to carry out the orders at the contractor's risk and all expenses consequent thereon 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 Engineers instructions or if on being opened up, it be found not in accordance with drawings and specifications or the written instructions of the Executive Engineer the expenses of opening it and covering it up again whether done by the contractor or such other workmen, shall be borne by or recovered from the contractor. If the work has not been covered up in contravention of such instructions or if on being opened up it be found to be in accordance with the drawings and specifications or the written instructions of the Executive Engineer, the expenses afore said 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 for inspection except at the expenses of Government.

26. Defects, shrinkages etc, after completion

26.1 Any defects, shrinkage or other faults which may appear within six months 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 specifications or the instructions of the Executive Engineer shall upon 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 contract ought to be paid for the same at the rates agreed on such reduced or other rates, as the Executive Engineer may fix and In case of default, the Executive Engineer may employ and pay other persons to attend 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.181 PWD 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 six months (or five years as the case may be) from the date of final taking over of the work irrespective of the actual dates on which portion of 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 may 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 or about the execution of the works only such persons as are careful, skilled and experienced in their several trades and callings and the Executive Engineer shall be at liberty to object to and request the contractor in or about the execution of the works any person employed by the contractor in or about the execution of the works who in the opinion of the Executive Engineer misconducts himself or is incompetent or negligent in the proper performance of his duties and such persons shall not be again employed upon the works without the permission of the Executive Engineer.

D-1 GENERAL OBLIGATIONS

29. Contractor's maistry 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 such maistri or agent shall be held to have been given to the contractor.

29.2 The contractor shall further provide all staff which is necessary for the proper supervision, execution and measurement of the work to ensure full compliance with the terms 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 maistri who is not borne on the Official list or officers and subordinates of the PWD 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 and directions as to the progress and execution 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 judgement is being

constructed with unsound or improper material or workmanship, until the opinion and determination of the Executive Engineer shall be obtained thereof, but such maistri clerk of works or agent is to have no power whatever to order any extra works or deviation from the specifications 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 situ and shall include all contingent expenses whether direct construction expenses 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 shall not entitle the contractor to claim an extra in respect thereof.

32. Carriage

32.1 Rates 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 case for such will be specified in the tender notice or schedule.

32.2 Wherever the terms '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 stacks to the satisfaction of the Executive Engineer with careful attention to close packing in case 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 ordinarily 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 measure by the nearest practicable and cheapest routes, whether metalled or unmetalled road or cart tract.

32.3 When carts or vehicles of any sort are engaged by the day, the quantity of materials to be conveyed, and 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 for the return trips with carts empty. Where there are loads also for the return trip 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 performance of all the operations connected with the work embraced under the contract as will secure as 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, or during the progress of the work or any part of it such methods or appliances appear to the Executive Engineer to be insufficient or inappropriate for securing the quality of the work required or the said rate of progress; he may order the contractor to increase their efficiency or to improve their character, and the contractor shall comply with such orders but the failure of the Executive Engineer to demand such increase of efficiency or 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, implements, 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 pay such deposit and hire, or purchase price as may be determined by the Executive Engineer. All articles that may be so lent or hired to the contractor shall be returned in good serviceable condition by him to the Executive Engineer before the final bill for work is paid and any shortage of damage shall be recovered from the contractor in the final bill at 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. 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 such 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 his 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 at 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 from the arrangements made by the contractor, the contractor 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 expense 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 there for (including storage tanks, meters, etc.) for the use of the work and workmen unless otherwise arranged and decided on, in writing with the E.E. 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 of mortar or otherwise prove harmful to the work.

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 portions 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, tolls, 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 sales tax under the provision of Madras General Sales Tax Act 1939 (Madras Act IX of 1939) 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 which such tax is payable.

38.3 Notwithstanding 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, Seigniorage 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 PWD 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 form 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 throughout the period of the contract.

39 Setting out works

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

40 Cleaning up during progress and for 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 before the work is finally handed over all 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 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 CONTRACTOR

41 Observance of laws, local regulations and notices, attachments

41.1 The contractor shall confirm 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 confirming 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 confirming to the provisions regulating or bye-law in question and any variation in the drawing or specifications so necessitated shall be dealt with under clause 59.

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, regulation order, decree or attachment whether by himself or by his employees.

42. Accidents – Hoarding – Lighting observations – Watchmen

42.1 When excavations have been made or obstacles have been put in public thorough fares or in places where there is any likelihood of accidents, the contractor shall comply with any requirement of law on the subject and shall provide suitable hoarding lighting and watchmen as necessary.

42.2 It shall be the contractor's sole responsibility to protect the public and his employees against accident from any cause and he shall indemnify Government against any claims for damages for injury to person or property, resulting from any such accident and shall where the provisions of the Workmen's Compensation Act apply, take steps to properly insure against any claims hereunder.

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 serious as to be 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 all 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 consequence 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 VII 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 the Contractor such sum or sums of money as may, in the opinion of the said Executive Engineer be sufficient to meet such liability. 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, trademark or name or other protected rights in respect of any constructional plant, machine work or materials used for or in connection with the works or temporary works, or any of them and from and against all claims, demands, proceedings, damages, costs 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 be complied with all the rules framed by the Government from time to time for the provisions of health and sanitary arrangements to workers employed by PWD and Highways and Rural 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 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 all facilities in connection therewith. In case the contractor fails to the make arrangements and provide facilities as aforesaid the Executive Engineer shall be at liberty to make arrangements and provide facilities as aforesaid the recover the costs incurred in that behalf from the contractor.

42.8 In respect of all labour directly or indirectly employed in the work for the performance of the contractors part of this agreement the contractor shall arrange to furnish in triplicate particulars for each work in the proforma vide appendix XXXVIII by the end of every month to the Executive Engineer in 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 operation – Instructions to contractor on blasting operations of the TNBP.

44 Protection of Existing and Adjoining premises

44.1 The contractor is to protect the whole of the adjoining and where necessary, the existing premises and all works and all fittings to all buildings on and adjoining the site against the structural and decorative damages caused by the execution of 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 in the execution of the work to existing public or to private footways or roadways.

45 Permit other workmen – Co-operation – Afford Facilities

45.1 The Executive Engineer shall have full power to send workmen upon the premises to execute fittings and other works not included in the contract, 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

contractor, 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 connections therewith and provided that the damage is not caused by himself or his workmen.

45.2 The contract shall, at all times co-operate assist, attend on and afford facilities for such specialists as may be employed by the Executive Engineer or 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 also 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 are engaged on installation or construction work in the same vicinity the Executive Engineer shall have the 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 workman like manner at the contractor's cost, as soon as the fittings have been installed in cases, where the installations are made during the constructions of the building 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 in public works department (Buildings) and (irrigation) executed by the contractor under the contract shall be maintained at the contractor's risk until the works is taken over by the Executive Engineer. The contractor shall accordingly arrange his own insurance against fire, flood, volcanic eruption, earthquake, other convulsions of nature and all other natural calamities, risks, arising out of acts of God, during such period and that the Government shall not be liable for any loss or damages occasioned by or arising out of any such acts of God.

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, invasion, hostilities or war like operations (before or after declaration of war) rebellion, military or usurped power. (As amended in G.O.Ms.No.1400 PWD dated.21.08.1981)

48 Holidays

- 48.1 Subject to any provision to the contrary contained in the contract none of the permanent work shall save as hereinafter 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 unavoidable or absolutely necessary for the safety of life or property or for the safety of the works in which case the contractor shall immediately advise the Executive Engineer.

G. MISCELLANEOUS

49 Crushed stone sand and Gravel

- 49.1 The contractor shall not make any excavations upon the site for the purpose of obtaining gravel, crushed stone 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 subletting

- 51.1 The contractor shall not without the written consent of the Executive Engineer assign the contractor nor sublet 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 responsibilities under any clause of these "Conditions of Contract" or of the "Articles of Agreement".

52 Specialists

- 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 the PWD code, the orders and decisions of such Executive Engineers with regard to?
- (a) Extension of time for completing the contract will be subject to the ratification of the Superintending Engineer for all works for which tenders were accepted by the Engineers of Public Works Department

including Superintending Engineer, Chief Engineer / Board of Engineers and Government and

- (b) The termination of contract or of employment of specialists for certain portion of the work will be subject to the ratification of the Chief Engineer for all works for which tenders were accepted by Engineers of PWD including Superintending Engineer / Chief Engineer / Board of Engineers and Government.

54 Order Book

54.1 An order book shall be kept at the PWD 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 PWD 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 or 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 extensions of time mentioned in the next clause. The contractor shall under no circumstance 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 withdrawal 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 of time

56.1 No claim for compensation on account of delays or hindrance 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 or 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 articles of agreement, it shall be lawful for the Executive Engineer to impose penalty or order forfeiture from the Deposit and sanction extension of time for such delays, provided however, the penalty and forfeiture, shall be governed as per clause 57.2 and 57.3

56.2 In the event of the Executive Engineer failing to issue necessary instructions and thereby causing delay and hindrance to 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 delay or 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 an 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 alterations or additions.

56.4 In cases where the Government under the terms of the contract with the contractor are liable to supply any materials, article or things to the contractor for the performance by him of his part of the contract, the executive Engineer, may at his absolute discretion extend the time within which such materials, articles or thing may be supplied by the Government, and the Government may supply to the contractor such materials, articles or things within the time so extended 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.

56.5 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 56.4 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 compensation 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 up to the date of such determined and left unused on the work-spot (Which shall be taken over by the Executive Engineer either at the contract rates or at values deducted from the through rates included 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 be final and binding on the contractor.

Explanation : The expression Through rules means the rate for the finished items of work or the alienates that is to say, the rates for finished items of work inclusive of the cost of materials and labour.

56.6 If, at any time after the acceptance of tender the Government shall, for any reason what so ever not required the whole or any part of the works to be carried out, the Executive Engineer shall give notice in writing of the fact to the contractor who hare no claim to any compensation or other payments what so ever, on account of any profit or advantage he might have derived from the Execution of the work in full but which he did not drive 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. may be rendered necessary by such termination. He shall also be allowed a reasonable payment as decided by the authority which accepted the tender, for any expense incurred by him on account of labour and materials, articles or thing collected, but which could not be 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 69. (As amended in Government Letter No.2163/Y2/95-1/dated.19.09.1996)

57 Delays in commencement or progress 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 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 extension of time or the contractor shall suspend the works, or sublet the work or a 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 receipt of such notice, it shall then or any time is lawful for the Executive Engineer to impose a penalty or forfeiture on this contractor from the deposit or to determine the contractor.

57.2 The penalty or forfeiture referred to in Clause 57.1 shall not exceed 5% of the value 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 part of the work to any other contractor at his discretion or have it done departmentally in order to maintain the rate of progress and the contract or done departmentally. The forfeiture under clause 57.2 will in these circumstances be applied and any

excess expenditure incurred on this account shall be recovered from the original contractor.

- 57.4 Determination of the contract referred to in Clause 57.1 shall carry with it the forfeiture of 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 by him shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under this contract or any other amount 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 by 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 or the 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 all or any of the powers vested in him under the clause 57.4 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 to) 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 be at liberty to remove from the site of works or from the ground contiguous 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 of such plant for the completion of the works under the provision 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 shall be paid for the same in account, at the contract rates, to be certified thereof 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 for completion of the works, if such plant and or materials are not removed within fourteen days after notice and 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 certificate of the Executive Engineer as to expense of any such removal and sale shall be final and binding on the contractor.

J PARTICULARS OF PAYMENT

58 Payment on lump sum basis or by final measurement at 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 measurement 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 therefrom 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 measurement aforesaid.

58.3 It shall be accepted as condition of the contract that the payment of the final bill to the contractor less the withheld amount and his acceptance thereof 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 shall be measured up and dealt with in accordance with clause 58.2

59.2 If there is no rate in Schedule A for additional work ordered to be carried out by the Executive Engineer, then prior to execution of the additional work, a rate of the additional work, shall be worked out in accordance with the methods indicated in 59.3 and with the rate agreed upon supplemental agreement shall be entered in the proper departmental 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 rate for supplemental agreements may be the prevailing schedule or rates plus or minus tender premium in case the rate cannot be arrived, the 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 rate 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 value the 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 contract and shall have the right to submit the matter to arbitration.

60 No payment for unsanctioned Extras

60.1 It shall be distinctly understood that no payment whatever will be made to 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 contract.

62 Fraud, wilful neglect or default

62.1 No final or other certificate of payment or of completion, acceptance or settlement of account shall, in any circumstances, relieve the contractor from his liability for any fraud, or wilful neglect or default in the execution of the contract or any wilful or unauthorized deviations from drawings, specifications, 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 situ.

64 Payments and Certificate

64.1 Payments will be made to the contractor under the certificates to be issued at reasonably frequent intervals by the Executive Engineer or the Sub Divisional Officer, within 14 days of the date of each certificate and intermediate payment will be made by the Executive Engineer or the Sub Division Officer of a sum equal to 95 percent of the value of work, as so certified and the balance of 5 percent will be with held and retained as security for the due fulfilment of the contract.

Under the certificate to be issued by the Executive Engineer or Sub Divisional Officer on the completion of the entire works, the contractor will receive the final payment of all the money due or payable to him under or by virtue of the contract except security deposit and the with held amount equal to 5% 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 by six months aforesaid, the security deposit, which includes EMD and also 5% of the withheld amount may be refunded under the sanction of the Superintending Engineer in the case of agreements accepted by the Executive Engineer and under the orders / sanction of the Chief Engineer concerned, in the case of agreement accepted by the Superintending Engineer on a bill, if requested for, by the contractor in writing to the sanctioning authorities viz., the Superintending Engineer and Chief Engineer, who while according sanction should review the cause for delay in payment of the final bill. 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 it relates nor shall it relieve the contractor from his liability to make good defects and provided by the contract. The contractor when applying for certificate, shall prepare a sufficiently detailed bill based on the original figures of quantities and rates in the contract Schedule A 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 certificates as to such of the claims 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. (As amended in the Government Letter No.19923/Y2/90-11 dated.14.10.1991)

64.1 (A) Notwithstanding the above clause, the withheld amount 2.5% from the final bill in respect of contract for construction of original building, will be retained by the Government for a total period of two years in lieu of six months period referred to in clause 64-1 above and will be released after the expiry of two years period on execution of an indemnity bond by the contractor to the satisfaction of the Executive Engineer for a further period of three years to ensure structural stability of the building under clause 26.1 A.

64.2 When there are complaints from the labour Department about non-payment of wages to the labourers employed by the Contractor for the execution of works under agreement, the Executive Engineer shall have full powers to withhold the bills claimed by the contractor pending clearance certificate from the Labour Department and to act as per the direction given by the Labour Department.

65 Interest on money due to the contractor

65.1 No omission by the Executive Engineer or the Sub Divisional Officer to pay the amount due upon certificates shall vitiate or make void the contract nor shall the contractor be entitled to interest upon any guarantee fund or payments in arrear, nor upon any balance, which may, on the final settlement of his accounts, be found due to him.

65.2 Whenever the withheld amount reaches Rs.1000 or a multiple thereof, the contractor may, at his option, deposit with Executive Engineer an equal amount in sums of Rs.1000 or a multiple thereof, in any of the forms of interest bearing securities recognised 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 forth with. The contractor will be permitted to exercise the option in the 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 a 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 Income Tax Authorities that all income tax payable by him upto date has been duly paid provided that nothing in this liabilities under the contract. It is further expressly agreed that Executive Engineer in supplying the final measurements 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 cases

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.

67.2 Recovery under Revenue Act

Whenever any amount has to be paid by the contractor in view of determination of the contract by virtue of clause 57 or any amount that may be due from the contractor is under these presents and the contractor is not responding to the demands for the payment of the said amount, then the Government shall be entitled to recover the said amount under the provisions of the Revenue Recovery Act.

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 being a partnership or firm becomes dissolved or being a corporation goes into liquidation voluntary or otherwise, 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 Gazette and all accepted and acceptable works shall forthwith be measured up and paid for at the rates provided in the contract schedule where such apply, or otherwise, competent authority to the persons entitled to receive and give a discharge for the payment.

J. SETTLEMENT OF DISPUTES

69. Arbitrations

69.1 In case of any dispute of difference between the parties to the contract either during the progress of 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 hereunder except as to matter 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 withholding by the Executive Engineer of payment of any bill to which the contractor may claim to be entitled, then either party shall forthwith give to the other notice of such dispute or difference and such dispute or difference, shall or be and is hereby referred to the Superintending Engineer of the nominated circle (Arbitrator) in case where the value of claim is less than and upto Rs.50,000. The Arbitrator shall give detailed reasons in their awards for their findings and conclusion.

Subject as aforesaid to the provisions of the Arbitration Act, 1940, or any statutory modification or re-enactment thereof and the rules made hereunder and for the time being in force shall apply to the Arbitration proceeding under this clause.

Upon every and any such reference, the costs of the incidental to the reference and award respectively shall be at the discretion of the arbitrator, subject to the 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, cost any expense incurred by either party provided that where a monetary claim is disallowed in full the said percentage shall be calculated on the amount of the costs to be awarded or direct the same to be taxed as between solicitor and client or as party and party and shall direct by whom and to whom and in what manner the same, shall be borne and paid.

The percentage above referred to in this clause are 5% on any such monetary award which does not exceed Rs.10,000, 3% on the next Rs.40,000 or any part thereof provided that the government shall not be liable to any claim in respect of any such dispute or difference until the liability and the amount thereof shall have been referred to and decided by the Arbitrator.

69.2 The fees for Arbitrators shall be levied based on the value of claims referred to for arbitration. The fees shall be calculated at 5% of the first Rs.10,000/- at 3% of the next Rs.40,000/-.

Sd/ M.Sugumarr
Superintending Engineer WRD.(i/c)
Tambaraparani Basin Circle,
Tirunelveli - 2.

SPECIAL CONDITIONS - GST ON WORKS CONTRACT

I) GST – AN INTRODUCTION

Goods and Services Tax (GST) is an Indirect Tax which was introduced in India on 1st July 2017 and was applicable throughout India which replaced multiple cascading taxes levied by the central and state governments. It was introduced as “The Constitution (One Hundred and First Amendment) Act 2017”, following the passage of Constitution 122nd Amendment Act Bill. The GST is governed by a GST Council and its Chairman is the Finance Minister of India. Under GST, all goods and services transacted in India are classified under the HSN code system or SAC Code system. Goods are classified under HSN Code and services are classified under SAC Code.

II) TENDER EVALUATION - GST ACT

The GST Laws required that all invoices should show the value of supply and GST separately. Act says taxes should be separated out in all invoices

TAMIL NADU TRANSPARENCY IN TENDERS ACT, 1998

Rule 14 (7) of the Tamil Nadu Transparency in Tender (TNTIT) Rules, 2000 requires that financial bid quoted should be inclusive of taxes and duties. Tamil Nadu Tender Transparency Act, 1998 amended in G.O.Ms.No.215, dated 13.07.17 stated that the evaluation of tender has to be made inclusive of GST (i.e. base Rate with GST). The above two Acts has to be adhered by the Government Departments in finalising all Govt. Contracts.

III) NEW TENDER CONDITIONS UNDER IMPLEMENTATION OF GST

GST RATES AT 12% FOR WORKS CONTRACT

1. a) Government of India has notified vide Notification No. 20 / 2017 Central Tax (Rate), dated 22nd August, 2017 and Notification No.24 / 2017 – Central Tax (Rate), dated 21st September, 2017, the concessional rate of the Goods and Services Tax (GST) at 12% [CGST at 6% + SGST at 6%] is leviable for any Government Contract, whether Civil or Electrical, irrespective of the Goods and Services Tax (GST) rate applicable on purchase of goods used in the execution of Government Contract.
- b) And the GST amount will be calculated at 12% from the sum of total tendered value quoted by the tenderer for construction cost (excluding GST) specified in the BOQ, Subject to GST rate applicable from time to time as recommended by the GST Council

2. INPUT TAX CREDIT (ITC)

- a)** As per Notification 202, dated 29.06.2017 and as per sub-section (2) of Section 7 of the Tamil Nadu Goods and Services Act, 2017, (Tamil Nadu Act 19 of 2017), activities or transactions undertaken by State Government shall be treated neither as supply of goods nor a supply of service
 - b)** As per Chapter IX (Section 41) of the Tamil Nadu Goods and Services Act, 2017, every registered persons may be entitled to take the credit of eligible input tax, as self-assessed, in his return and such amount shall be credited on a provisional basis to his electronic credit ledger.
 - c)** As per PWD Revised SoR (2017-18), dated 21.10.2017, under General Note, 8 (ix), the Contractor is eligible to get refund of excess tax paid over or liable to pay tax for this Contract Work.
- 3) The Tenderer should furnish the Copy of Goods and Services Tax (GST) Registration No. while submitting tender schedule.
- 4) **QUOTING RATES BY TENDERER EXCLUDING GST**
- i) The Tenderer shall quote the rates and prices (both in figures and words) for all the items of the Works described in the Bill of Quantities excluding GST along with sum of the quoted tender value excluding GST at the end (both in figures and words).
 - ii) All duties, taxes, and other levies except GST, payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder”.

5) TOTAL TENDER PRICE

The total tender price will be the cumulative of value quoted for construction (Total Basic Rate + GST).

6) EARNEST MONEY DEPOSIT

The amount of EMD is fixed at 1% of the contract value of work put to tender (including the GST Amount)

7) SECURITY DEPOSIT

The successful Bidder shall furnish a Security Deposit in one of the forms prescribed in Tamilnadu Account code in favour of **Executive Engineer, PWD/WRD., Kodayar Basin Division, Nagercoil** for an amount equivalent to 2% of the contract value including the GST Amount.

8) RETENTION AMOUNT

- a) In addition to the aforesaid security deposit, retention amount shall be deducted from the running account bills, a sum equivalent to 5% (Five Percent) of the total value (including the Goods and Services Tax (GST) Amount for all the running account bill) of each bill as retention money.
- b) Out of the 5% retention amount, 2½ % (Two and half Percent) of the total value of the work so far executed will be released to the contractor on payment of final bill, and in the final bill, the Goods and Services Tax (GST) amount retained in previous payment has to be released to the contractor without interest and the balance 2½% will be retained for a period of one year reckoned from the date of completion of the work, as all defects shall have been made good according to the true intent and meaning hereof, whichever shall happen last.
- c) The retention money of 2½% including GST (Two and a Half Percent) of the total value of contract after deducting any amount due to the Department, shall be refunded to the Bidder without interest after the defects liabilities attached to the contract is over and on execution of Indemnity bond by the contractor for the further period of four years.

9) MINIMUM CRITERIA FOR QUALIFICATION,

The Applicant should produce Income Tax Clearance Certificate valid for the current period, "VAT" Verification Certificate (i.e. previous assessment year) and TIN number having validity and copy of Goods and Services Tax (GST) Registration No.

10) SCHEDULE OF RATES AND APPROXIMATE QUANTITIES:

The quantities given here are those upon which the lump sum tender cost of the work is based, but they are subject to alternations, omissions, deductions or addition as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done. The unit rates excluding GST Amount, quoted below are those governing payment for extras or deductions or omissions according to the condition of the contract, as set forth in the Preliminary specification of the standard specifications for roads and bridges with the MORTH specifications and other condition of specifications of the contract. It is to be expressly understood that the measured work is to be taken net (Not withstanding any custom or practice to the contrary) according to the actual quantities. When in places and finished according to the drawings, or as may be ordered from time to time by the Collector and the cost calculated by

measurement or weight at the respective prices, without any additional charge for any necessary or contingent works concerned therewith. The rates quoted excluding GST Amount are for the finished works in situ and complete in every respect. The Tenderers should quote their rates excluding GST for the quantity and units specified under metric units under Schedule shall be substituted.

11) BILL OF QUANTITIES, PREAMBLE,

The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties (except GST), together with all general risks, liabilities and obligations set out in the Contract. The GST amount will be calculated at 12% of sum of the Bid value (excluding GST) quoted by the bidder for construction Cost specified in the BoQ. The BoQ should include GST (Goods and Services Tax) Amount”.

12)GOODS AND SERVICES TAX (GST) REGISTRATION AND ADDITION OF GST IN BILLS:

The Contractor should be required to indicate their GST registration number under the Goods and Services Tax (GST) Act 2017 in the tender form. The Central Goods and Services (CGST) Act 2017, the Integrated Goods and Services (IGST) Act 2017 and the Tamil Nadu Goods and Services (TNGST) Act 2017 have been enacted and enforced from 01.07.2017. Under the new tax regime, GST (comprising CGST, SGST and IGST) on works contracts for Government work was finally notified at 12 percent. As per the Tamil Nadu Goods and Services (TNGST) Act 2017, with effect from 01.07.2017.

13)NEGOTIATIONS

- a) **Negotiation of rates will be** made only with the lowest tenderer for reducing the quoted rates and the negotiation will be made for the rates quoted to the items in the construction part alone and not for GST amount.
- b) After negotiation with lowest tenderer, the GST amount will be recalculated at 12% of the sum of the Negotiated tender value (excluding GST) for construction Cost specified in the BOQ, subject to GST rate applicable from time to time as recommended by the GST Council.

14) AWARD OF CONTRACT

“The tender to be substantially responsive to the bidding documents and who has offered the lowest evaluated total tender price (Total Quoted Value including the Goods and Services Tax (GST) Amount)

15) PAYMENT

- a) Part or complete Payment will be made only on satisfactory completion of work in full / part thereof and value of work executed shall be determined, based on the measurements and check measurements by the Engineer in the Measurement Book. For every Bill, 12% of GST will be paid to the contractor based on the value of work done for Construction by the Employer. After the payment including 12% of GST, the Contractor should pay the GST Amount to Government through his GST Registration No. Also the contractor needs to submit the Material purchase bill mentioning the name of the work/s in the package and GST No. to the Employer.

b) First Bill Payment::

At the time of payment for first running account bill, the contractor should produce the GST paid details on goods (Materials) to the Employer for ITC.

c) Intermediate Bill Payment::

At the time of payment for next running account bills, the contractor should produce the GST paid details of services upto previous bill payment (i.e. GST paid detail for the previous work bill) along with Input Tax Credit (ITC) availed at the time of payment of intermediate bill to the employer.

d) Final Bill Payment:

The contractor should produce the GST paid details for all the materials used for construction work and GST paid details of services for the upto previous payment (i.e. GST paid detail for the upto previous work bill) to the Employer along with Input Tax Credit (ITC) availed at the time of payment of final bill to the employer.

e) Submission of GST paid details of Final Bill:

The GST paid details for the final work bill payment of construction work to be submitted by the contractor to the employer in few days after getting payment.

Sd/ M.Sugumarr
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SPECIAL CONDITION – I

1. The Tamilnadu Transparency in Tender Act No.43 of 1998 and the Tamilnadu Transparency in Tender Rules 2000 are applicable for this contract.
2. Materials used by the contractor at site such as cement, steel, crushed stone sand, 40mm & 20mm metals should be tested in the Quality Control Laboratory of an Engineering College and the copies of test results should be made at the site of work by the inspecting Officers. The cost for the testing should be borne by the Contractor.
3. The Engineer in charge of the work will make concrete cubes wherever necessary for Quality Control tests. All materials, concrete samples and cubes should be tested by the Engineer incharge and test results be made available at site for the inspection of the officers.
4. Needle Vibrators should be used compulsorily for consolidating the concrete.

Special Condition-II

The safety measures to be observed for the prevention of children being trapped and falling into bore wells and tube wells or abandoned wells as follows:-

- i) The owner of the land /premises, before taking any steps for constructing bore well/tube well must inform in writing at least 15 days in advance to the concerned authorities in the area, ie. District Collector/District Magistrate/Sarpanch of the Gram Panchayat/ Concerned officers of the Department of Ground Water/ Public Health /Municipal Corporation, as the case may be, about the construction of bore well/tube well.
- ii) Registration of all the drilling agencies, viz., Government/Semi Government/Private etc., should be mandatory with the District Administration.
- iii) Erection of signboard at the time of construction near the well with the following details.
 - a) Complete address of the drilling agency at the time of construction/rehabilitation of well.
 - b) Complete address of the user agency/owner of the well.
- iv) Erection of barbed wire fencing or any other suitable barrier around the well during construction.

- v) Construction of cement /concrete platform measuring 0.50x0.50x0.60. metre (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.
- vi) Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.
- vii) In case of pump repair, the tube well should not be left uncovered.
- viii) Filling of mud pits and channels after completion of works.
- ix) Filling up abandoned bore wells by clay/crushed stone sand /boulders/ pebbles/drill cutting etc., from bottom to ground level.
- x) On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.
- xi) District collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of boreholes / tube wells are being taken care through the concerned state/ Central Government agencies.
- xii) District/Block/ Village wise status of bore wells/ tube wells drilled viz. No. of wells in use, No, of abandoned bore wells/ tube wells found open, No. of abandoned bore wells/ tube wells properly filled up to ground level and balance number of abandoned bore wells/ tube wells to be filled up to ground level is to be maintained at District level. In rural areas, the monitoring of the above is to be done through village Sarpanch and the Executive from the Agriculture Department. In case of urban areas, the monitoring of the above is to be done through Junior Engineer and the Executive from the concerned Department of Ground Water / Public Health/ Municipal Corporation etc.,
- Xiii) If a bore well/ tube well is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water/Public health/ Municipal Corporation/Private contractor etc., must be obtained by the aforesaid agencies that the 'Abandoned' bore wells/ tube well is properly filled upto the ground level. Random inspection of the concerned agency/ department. Information on all such data on the above are to be maintained in the District Collector/ Block Development Office of the State.

SPECIAL CONDITION – III

1. Risk

All risks of loss of or damage to works, physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the Contractor.

2. Insurance

- i) The Contractor shall provide, in the joint names of the Engineer and the Contractor, insurance cover from the Start Date to six months from the completion of the work and deductibles stated in the following events which are due to the Contractor's risks:
 - (a) loss of or damage to the Works, Plant and Materials;
 - (b) loss of or damage to Equipment;
 - (c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
 - (d) personal injury or death.
- ii) Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's verification before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- iii) Alterations to the terms of an insurance shall not be made without the approval of the Engineer.
- iv) Both parties shall comply with any conditions of the insurance policies.

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APPENDIX No.1

PUBLIC WORK DEPARTMENT SAFETY CODE

General Rules as to Scaffolds

1. Suitable scaffolds shall be provided for workmen 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 1 (0.25) horizontal to 1 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 competent and responsible person; and (b) as far as possible by competent workers possessing adequate experience in such work.
3. All scaffolds and appliance connected therewith and all ladders shall
 - a) be of sound material
 - b) be of adequate strength having regard to the load strain to which they will be subjected and
 - c) be maintaining in proper condition.
4. Scaffolding or staging more than 3.5 metres above the ground or floor shall have a guard rail properly attached, boll-braced and otherwise secured at least 0 metres above the floor on platform of such scaffolding or staging and 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 fastened as to prevent it from swaying from the building or structure.
5. Scaffolds shall not be so constructed that no part thereof can be displaced in consequence of normal use.
6. Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.
7. Before installing lifting gear of scaffolds special 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 gangway 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 metre to prevent the fall of 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 30 cm for ladder-up to and including 3 metres in length. For longer ladders this width should be increased at least 20 mm for each additional metre of length uniform step spacing should not exceed 30 cms. 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 cause 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 the defence to 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 damages and cost which may be awarded in any such suit, action or proceedings to any such persons or which may with the consent of the contract be paid to compensate and claim by any such person.

Excavation and Trenching

11. Trenches – 1.2 metres or more in depth shall at all times be supplied with at least one ladder for each 30 metres in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 0.8 metre above the surface of 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 timber 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 which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
 - c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
13. All necessary personal safety equipment as considered adequate by the Executive Engineer shall be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.
 - a) Workers employed on mixing asphalted materials cement and lime mortars shall be provided with protective footwear and protective goggles.

- b) Those engaged in white – 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 be provided with welder's protective sight ligs.
 - d) Those engaged in welding works shall be provided with welder's protective sight ligs.
 - 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 at least for an hour before the workers are allowed to get into the manholes 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 and 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.
 - iii) Overalls shall be supplied by the contractors to workmen and adequate facilities shall be provided or 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 causality, adequate protection of the workers should be provided.
14. When the work is done near any place where there is risk of drowning all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first treatments of all injuries likely to sustain during the course of the works.
15. a) Hoisting machines and tackle including their attachments anchorages and good mechanical construction sound materials and adequate strength and free from patent defects and shall be in good repair and in good working order. Every rope used in hoisting or lowering materials or as a 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 persons under the age of 21 years should be in control of any hoisting machine, including the scaffold which or give signals to the operator.
 - c) In case of every hoisting machine and of every chain hook shackle level and pulley block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load, in the case of a hoisting machine having a 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 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 transmission, electric 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 decent 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, insulating mats, wearing apparel such as gloves, sleeves 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 inspection by the Labour Officer, Executive Engineer of the Department or other representative.
19. Notwithstanding the above clauses (1) to (18) there is nothing in these to exempt the contract 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 PWD and Highways and Rural Works Department and their contractors.

The Contractor's special attention is invited to relevant clauses of the "General Conditions of Contract" in the Tamilnadu 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 PWD.

2. Definition

- (i) "Work that means a place a which an average fifty or more workers are employed in connection with construction work.
- (ii) "Large work place" means a 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 sterilized dressing and sterilised cotton wool. The appliances shall be kept in good order. They shall be placed under the charge 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 trained compounder.
- c) Where large work places 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 of 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 15 litres per head per day.
- b) Where drinking water is obtained from an intermittent public water supply each work place shall 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 15 metres from any latrine, drain or other source of pollutions. Where water has to be drawn from an existing well which is within such proximity 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 at least once a month.

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

6. Latrines and 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 them, shall be on the following scale or on the scale so directed by the Executive Engineer in any particular case.

- i.) Where the number of persons employed does not exceed 50-2.
- ii) Where the number of persons employed exceeds 50 but does not exceed 100-3
- iii) For every additional 100 3

If women are employed separate latrines and urinals, screened from those for men shall be provided 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 a dry earth system which shall be cleaned at least 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 at least once a year.

The excreta from the latrines shall be disposed off at the contractor's expense, in outway pits approved by the local Public Health authority. The Contractor shall also employ adequate number of scavengers and conservators 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 labourers.

8. Creches:

- a) At every work places 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 but shall be used for infants games and play and the other as a 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 dais in attendance. Sanitary utensils shall be provided to the satisfaction of the 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 but less than 50, the contractor shall provide at least one hut and the one dai to look after the children of women workers.
- c) The size of crèche or chreches shall vary according to number of women workers.
- d) The creche or chreches shall be properly maintained and necessary equipment like toys, etc, shall provide.

9. Canteens

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

10. Sheds for workmen

The contractor should provide at 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 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 12 metres around.

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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 :

Category (1)	Men		Employees	
	(2)	Women (3)	Boys (4)	Girls (5)
I. Total number of employees during months				
II. Number of employees in the works on the last working day of the month				
III. Total wages paid for				
IV. Total numbers of working days during the month				
V. Length of normal wage period				

Date :

Place :

Signature of the Contractor
or Manager

To

1. The Employment Officer, District Employment Office,
2. The Executive Engineer, PWD/WRD.,Division.

INSTRUCTIONS TO COMPLETE THE PROFORMA

1. The contractor means that has constricted to execute the works.
2. Manager means any person who manages, supervises the work(s) on behalf of the contractor.
3. **Item – 6**
 - i) The cumulative total of daily employment on all days in calendar month, if the last day of the calendar month is a holiday, the working day immediately previous to the holiday.
 - ii) Wages means basic wage, dearness allowance project allowances etc. including work benefits paid in cash or kind.
4. Returns should cover a calendar month.
5. Completed returns to reach the employment exchanges concerned on or before 5th of the month succeeding the month to which he return relates.

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SCHEDULE 'A'

NAME OF WORK: Improvements to Thalakulam Anicut and Manavalakurichi Big Tank in Manavalakurichi village of kalkulam Taluk in Kanyakumari District.

EMD : Rs. 47,000/-

Tender Date : 28.07.2022

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specificat-ion if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
1	12200.00 Sqm (Twelve thousand and two hundred square metre)	Clearing scrub Jungle etc., complete complying with standard specification and as directed by the departmental officers	SS 20 B			1 m ² (One square metre)	
2.	8625.00 Sqm (Eight thousand six hundred and twenty five square metre)	Picking 5cm to 10cm old metalled surface and sectioning etc., complete complying with standard specification and as directed by the departmental officers				1 m ² (One square metre)	
3.	13300.00 Cum (Thirteen thousand and three hundred cubic metre)	Earth work in all soils except hard rock requiring blasting and conveying for fomation of bund with lead of 1KMMR deploying earth moving machineries and tippers including benching, formation of bunds, breaking clods, sectioning, extra watering and consolidation with Power roller etc., complete complying with standard specification and as directed by the departmental officers				1 m ³ (One cubmic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
4.	3700.00 Cum (Three thousand and seven hundred cubic metre)	Earth work excavation deploying earth moving machinery for desilting channel having a width upto 3m and forming bund on either side and depositing the earth on banks including jungle clearance etc., complete complying with standard specification and as directed by the departmental officers.	SS 20 B			1 m ³ (One cubic metre)	
5.	11.50 Cum (Eleven point five zero cubic metre)	Dismantling clearing away and carefully slacking materials useful for reuse for any thickness of walls in brick/ stone masonry in Cement mortar walls under 3 height as directed by the Departmental officers complying with standard specification.				1 M ³ (One cubic metre)	
6.	3.50 Cum (Three point five zero cubic metre)	Dismantling clearing away and carefully slacking materials useful for reuse Reinforced cement concrete as directed by the Departmental officers complying with standard specification				1 M ³ (One cubic metre)	
7.	5.00 Cum (Five cubic metre)	Dismantling clearing away and carefully slacking materials useful for reuse Plain cement concrete as directed by the Departmental officers complying with standard specification				1 M ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
8.	3456.00 Bags (Three thousand four hundred and fifty six bags)	Forming ring bund using empty cement bag filled with crushed stone sand stitching the bags with jute coir, conveyed the stitched bags to river portion for forming ring bund by placing the stitched crushed stone sand bags in proper position and packing tightly and plugging the joints with clay and straw leaves to arrest the leakages as directed by the departmental officers including the cost of empty bags, crushed stone sand, jute coir etc., complete complying with standard specification and as directed by the departmental officers.				1 Bag (Each Bag)	
9.	53.50 Cum (Fifty three point five zero cubic metre)	Earth work Excavation in hard stiff clay, stiff black cotton soil, hard red earth, shales, murram, gravel, stoney earth and earth mixed small size boulders and hard gravelly soil and depositing on bank with an initial lead of 10metres and initial lift of 2 metres and clearing, levelling the site etc., complete complying with standard specification and as directed by the departmental officers. (for open excavation)	SS 20B			1 m ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
10	187.00Cum (One hundred and eighty seven cubic metre)	Earth work Excavation for foundation in hard stiff clay, stiff black cotton soil, hard red earth, shales, murram, gravel, stoney earth and earth mixed small size blouders and hard grvelly soil and depositing on bank including shoring, strutting and bailing out water wherever necessary, well rammed, consolidated and deposing the surplus earth in places as shown by the departmental officers with an initial lead of 10metres and initial lift of 2 metres and clearing, levelling the site etc., complete complying with standard specification and as directed by the departmental officers.	SS 20B			1 m ³ (One cubic metre)	
11.	5.50 Cum (Five point five zero cubic metre)	Providing and placing in position Plain Cement concrete of M-10 using broken hard granite coarse aggregate (well graded) of nominal maximum size of 40mm and down graded to IS specified using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 10 N / mm ² in 28 days) and mixing the ingredients in approved mixer including dewatering of the placement site by baling/pumping and diverting wherever necessary placing in layers and watering, curing, finishing the surface with all leads and lifts etc., complete in all respects so as to attain the profile and strength as specified in the approved drawings and specification etc., complete complying with standard specifications and as directed by the Engineer incharge of work.	SS 28			1 m ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
12	46.00 Cum (Forty six cubic metre)	Providing and placing in position Plain Cement concrete of M-15 using broken hard granite coarse aggregate (well graded) of nominal maximum size of 40mm and down graded to IS specified using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 15 N / mm ² in 28 days) and mixing the ingredients in approved mixer including dewatering of the placement site by baling/pumping and diverting wherever necessary placing in layers and watering, curing, finishing the surface with all leads and lifts etc., complete in all respects so as to attain the profile and strength as specified in the approved drawings and specification etc., complete complying with standard specifications and as directed by the Engineer incharge of work.	SS 28			1 m ³ (One cubic metre)	
13.	20.00 Cum (Twenty cubic metre)	Providing and placing in position Plain Cement concrete of mix M-15 Graded mix using broken hard granite coarse aggregate (well graded) 60% of nominal maximum size of 40mm metal and 40% of nominal maximum size of 20mm and down graded to I.S. specified grading using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 15N/mm ² in 28 days) and mixing the ingredients in approved mixture including dewtering of the placement site by baling / pumping and diverting wherever necessary placing in layers and vibrating,	SS 28			1 m ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
		watering, curing, finishing this surface with all leads and lifts etc., complete in all respects so as to attain the profile and strength as specified in the approved drawings and specifications etc., complete complying with standard specification and as directed by the Engineer in charge of work.					
14.	230.00 Cum (Two hundred and thirty cubic metre)	Providing and placing in position Plain Cement concrete of M-20 using broken hard granite coarse aggregate (well graded) of nominal maximum size of 40mm and down graded (70% 40mm and 30% 20mm) to L.S specified grading using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 20 N/mm ² in 28 days) and mixing the ingredients in approved mixer including dewatering of the placement site by baling/pumping and diverting wherever necessary placing in layers and watering, curing, finishing the surface with all leads and lifts etc., complete in all respects so as to attain the profile and strength as specified in the approved drawings and specification etc., complete complying with standard specifications and as directed ny the Engineer incharge of work.	SS 28			1 M ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
15	16.50 Cum (Sixteen point five zero cubic metre)	Providing and placing in position of Reinforced Cement Concrete M20 using hard broken granite course aggregate (well graded) of nominal maximum size of 20mm graded to I.S. Specification grading using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 20 N / mm ² at 28 days) and mixing the ingredients in by using mixer machine including dewatering of the placement site by bailing / pumping and dewatering wherever necessary laying the concrete in layers as directed and in bays compacting and vibrating watering curing finishing the surface with all leads and lifts so as to attain the profile and strength as specified in the approved drawing and specification for various depth and height below and above ground level etc., complete complying with standard specification and as directed by the departmental officers. (with Vibrator)	SS 28			1 m ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
16.	46.00 Cum (Forty six cubic metre)	Providing and placing in position of Reinforced Cement Concrete M30 using hard broken granite course aggregate (well graded) of nominal maximum size of 20mm graded to I.S. Specification grading using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 30 N / mm ² at 28 days) and mixing the ingredients in by using mixer machine including dewatering of the placement site by bailing / pumping and dewatering wherever necessary laying the concrete in layers as directed and in bays compacting and vibrating watering curing finishing the surface with all leads and lifts so as to attain the profile and strength as specified in the approved drawing and specification for various depth and height below and above ground level etc., complete complying with standard specification and as directed by the departmental officers. (with Vibrator)	SS 28			1 m ³ (One cubic metre)	
17.	15.00 Rm (Fifteen running metre)	Providing and fixing seepage pipes of 100mm dia PVC pipes of required lengths for abutments and wings including cost and conveyance of all materials to work site. Cost of labour for 900mm dia. Semi - Spherical back broken granite chips at the periphery and labours charges for fixing etc. to drain of the back fill in the abutments and wings etc., complete complying with standard specification and as directed by the departmental officers.	Special			1 Rm (One running metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
18	14.00 Sqm (Fourteen square metre)	Supplying and fixing KRAFT PAPER for full width of seating of deck slab and including cost and conveyance to work site, labour for fixing the same in correct position and all other incidental charges etc., complete complying with standard specification and as directed by the departmental officers.	Special			1 m ² (One square metre)	
19.	42.00 Cum (Forty two cubic metre)	Providing filter media behind the abutments and wings with clean III graded material 53mm to 5.6mm to 600mm thick and well compacted in layers with smaller sized towards the soil and bigger size towards the wall including cost and conveyance to work site including all labours and other incidental charges for tools and plants employed etc. For filter media as per MOST's (Road wings) specification for roads and bridges "fourth revision ci 309 -3-2-13 and 305-4-4 etc., complete complying with standard specification and as directed by the departmental officers.	Special			1 m ³ (One cubic metre)	
20.	35.50 Cum (Thirty five point five zero cubic metre)	Filling behind Abutments and wings with clean gritty gravel including cost and conveyance of gravel to work site, laying handling charges and filling in layers, tamping under optimummoisture content to get the maximum density including watering, with all leads for water and all other incidental charges etc., complete complying with standard specification and as directed by the departmental officers.				1 m ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
21	65.69 Qtl (Sixty five point six nine quintal)	Supplying, fabricating and placing in position of steel reinforcement using mild steel or ribbed tor steel rods of various diameter for all Reinforced Cement Concrete works as per the design given including cost of steel, binding wire labour charges for cutting, bending tying the grills and laying in position for various depths and heights below and above ground level etc., complete complying with standard specification and as directed by the departmental officers.	SS 30, 86 & 86 A & B			1 Qtl (One quintal)	
22.	8.50 Cum (Eight point five zero cubic metre)	Providing and placing in position of Cement Concrete M30 using hard broken granite coarse aggregate (well graded) of nominal maximum size of 20mm graded to I.S. Specification grading using crushed stone sand(m-sand) (to achieve the specified characteristic strength of 30 N / mm ² at 28 days) and mixing the ingredients in by using mixer machine including dewatering of the placement site by bailing / pumping and dewatering wherever necessary laying the concrete in layers as directed and in bays compacting and vibrating watering curing finishing the surface with all leads and lifts so as to attain the profile and strength as specified in the approved drawing and specification for various depth and height below and above ground level etc., complete complying with standard specification and as directed by the departmental officers. (with Vibrator)	SS 28			1 m ³ (One cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
23		Supplying and erecting water tight steel centering for sides and soffits including necessary supports and strutting upto 3.29 m hight for plain surfaces such as R.C.C.slabs, vertical slabs, side slabs of R.C.C. works with all cross bracings using mild steel B.G.10 gauge sheets of size 90cm x 60cm stiffened with welded mild steel angles of size 25mm x 25mm x 3mm for boarding laid over silver oak (country wood) joists of size 10cm x6.5cm spaced at about 90cm centre to centre and supported by casurina props of 10cm to 13cm dia spaced at 75cm centre to centre etc., complete complying with standard specification and as directed by the departmental officers. (The retrieved materials should be taken back by the contractor). The payment should be made after the concrete is laid.	SS 30				
a	168.00 Sqm (One hundred and sixty eight square metre)	Centering without strutting				1 m ² (One square metre)	
b	469.00 sqm (Four hundred and sixty nine square metre)	Centering with strutting				1 m ² (One square metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
24	15.00 Rm (Fifteen running metre)	Supplying and fixing 300mm wide PVC EXPANSION JOINT in the 20mm expansion gap provided in between decks over piers and dirt wall over abutment as shown in the drawing including cost and conveyance of expansion joints including Shalimar pad and joint sealant etc., complete complying with standard specification and as directed by the departmental officers.	Special			1 Rm (One running metre)	
25	6.00 Nos. (Six numbers)	Supplying and fixing GI DRAINAGE SPOUTS 100mm dia as per GOI drawing SD/205 with grating arrangements at top as shown in the drawing and 100mm dia drainage spout projecting atleast 300mm beyond the bottom of deck slab as shown in the drawing, including cost and conveyance of galvanised iron pipes and flats and fixing them in position etc., complete complying with standard specification and as directed by the departmental officers. As per cl2705 of MORT & specification (Revision)	Special			1 No. (Each)	
26	170.00 Cum (One hundred and seventy cubic metre)	Refilling with excavated soil (other than sand) complying with standard specification for filling in foundation and basement etc complete as directed by the Engineer in charge of work complying with the standard specification.	SS 20			1 m ³ (One Cubic metre)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
27	1.00 No (One number)	Supplying fabricating and erection of steel screw gearing shutters size of 1.10m x 1.50m as per the following specification. The skin plate shall be made out of 8mm MS plate of best quality. The steel stiffener on the rearside shall be made of ISMC 100x50mm. The stiffeners made of ISMC 100x50mm should be provided alround in the rearside and vertical & horizontal stiffeners should be provided at intervals not exceeding 600mm in either direction. A lifting lug shall be provided with 2 MS plates of size 400x200mm. 4 nos of 18 mm holes are drilled in the lug suitably to accomodate 5/8" MS bolts & nuts. The lifting lug shall be welded to the top of the shutter at the front & rear edge to maintain proper equilibrium while lifting . The wormnut hoist comprising of a screw rod made of 65mm Ø MS Rod . The threaded portion shall be with 12mm pitch. The screw rod shall be connected to the shutter. Wormnut hoist to suit 65mm screw rod shall be provided. The worm wheel shall be made of phosphor bronze with 175mm OD with 25 teeth x 25mm circular pitch. Thrust ball bearings should be provided on either side of the worm wheel. Oil seal of size 110x135x13 shall be provided on either side of the worm wheel. A cast iron cover shall be provided over the whole arrangement. MS Worm 65mm ID & 25mm, pitch double thread shall be provided. Thrust ball bearing O 12 shall be provided on either side of worm. A wormnut stand of height 740mm & 380mm at the top & 590mm at the bottom shall be provided with 10mm MS plate. The welding shall be done as per standard procedures and the burr and slag shall be removed by grinding the top of welds. A good weld is as strong as the base metal. A suitable electrode				1 No. (Each)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
		shall be chosen and welded with a good welding equipment and a trained welder. All non - metallic substances shall be removed in the weld joints before commencement of welding. After welding, a thorough visual inspection shall be done for porosity, blowholes, unfused welds, unfilled craters, under cutting, burning & poor weld appearance, etc. Then all steel surfaces are cleaned of dirt, grease, oil, welding spatter, etc by abrasive blast cleaning and then a coat of anticorrosive zinc rich primer shall be given. After a curing period of 12 hours a coat of coal tar epoxy shall be given over which another coat shall be applied. The cost includes cost of all materials, cost of consumables like welding rods, grinding wheel, oxygen & acetylene gas, diesel & oil for generator, process charges like gas cutting, welding, labour charges for dismantling, loading, lifting, unloading, transport, erection, hire charges for equipments like chainpulley block, welding machine, cutting set, grinding machine, power charges for generator, conveyance to site and clearing them after completion of work, including cost of trial operation, warranty for 5 years except protective coating, etc., complete as directed by the departmental officers.					
28.	3.00 Nos (Three numbers)	Supplying fabricating and erection of steel screw gearing shutters of size 0.70m x 1.00m as per the following specification. The skin plate shall be made out of 8mm MS plate of best quality. The steel stiffener on the rearside shall be made of ISMC 100x50mm. The stiffeners made of ISMC 100x50mm should be provided alround in the rearside and vertical & horizontal stiffeners should be provided at				1 No. (Each)	

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specification if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
		<p>intervals not exceeding 600mm in either direction. A lifting lug shall be provided with 2 MS plates of size 400x200mm. 4 nos of 18 mm holes are drilled in the lug suitably to accomodate 5/8" MS bolts & nuts. The lifting lug shall be welded to the top of the shutter at the front & rear edge to maintain proper equilibrium while lifting . The wormnut hoist comprising of a screw rod made of 65mm Ø MS Rod . The threaded portion shall be with 12mm pitch. The screw rod shall be connected to the shutter. Wormnut hoist to suit 65mm screw rod shall be provided. The worm wheel shall be made of phosphor bronze with 175mm OD with 25 teeth x 25mm circular pitch. Thrust ball bearings should be provided on either side of the worm wheel. Oil seal of size 110x135x13 shall be provided on either side of the worm wheel. A cast iron cover shall be provided over the whole arrangement. MS Worm 65mm ID & 25mm, pitch double thread shall be provided. Thrust ball bearing O 12 shall be provided on either side of worm. A wormnut stand of height 740mm & 380mm at the top & 590mm at the bottom shall be provided with 10mm MS plate. The welding shall be done as per standard procedures and the burr and slag shall be removed by grinding the top of welds. A good weld is as strong as the base metal. A suitable electrode shall be chosen and welded with a good welding equipment and a trained welder. All non - metallic substances shall be removed in the weld joints before commencement of welding. After welding, a thorough</p>					

Item No.	Probable quantities in figures and in words	Description of work	TNBP No. and other special specificat-ion if any.	Rate in words	Rate in figures	Unit in words	Amount in figures
		visual inspection shall be done for porosity, blowholes, unfused welds, unfilled craters, under cutting, burning & poor weld appearance, etc. Then all steel surfaces are cleaned of dirt, grease, oil, welding spatter, etc by abrasive blast cleaning and then a coat of anticorrosive zinc rich primer shall be given. After a curing period of 12 hours a coat of coal tar epoxy shall be given over which another coat shall be applied. The cost includes cost of all materials, cost of consumables like welding rods, grinding wheel, oxygen & acetylene gas, diesel & oil for generator, process charges like gas cutting, welding, labour charges for dismantling, loading, lifting, unloading, transport, erection, hire charges for equipments like chainpulley block, welding machine, cutting set, grinding machine, power charges for generator, conveyance to site and clearing them after completion of work, including cost of trial operation, warranty for 5 years except protective coating, etc., complete as directed by the departmental officers.					
				Total Basic Value			
				Add GST @ 12%			
				Grand Total Value of Tender			

The Schedule contains 28(Twenty eight) Items only.

Sd/ M.Sugumarr
 Superintending Engineer WRD.(i/c)
 Thambaraparani Basin Circle, Tirunelveli

SCHEDULE B
LIST OF DRAWINGS

Note : All drawings to be signed by the contractors as well as the officer entering into the contract

Sl. No.	Drawing Sheet No.	Description	Nos.
1.	1.	Index Map	1 No.
2.	2.	Cross section of Return wall	1 No.
3.	3.	Longitudinal section Elevation	1 No.
4.	4.	Cross section of culvert	1 No.
5.	5.	Reinforcement details	2 Nos.

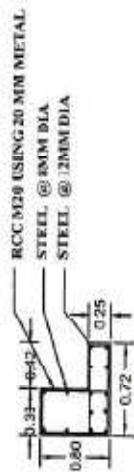


	via Eraniel - Muttom Rd	38 min
		17.5 km

Restaurants Hotels Gas stations Parking Lots More

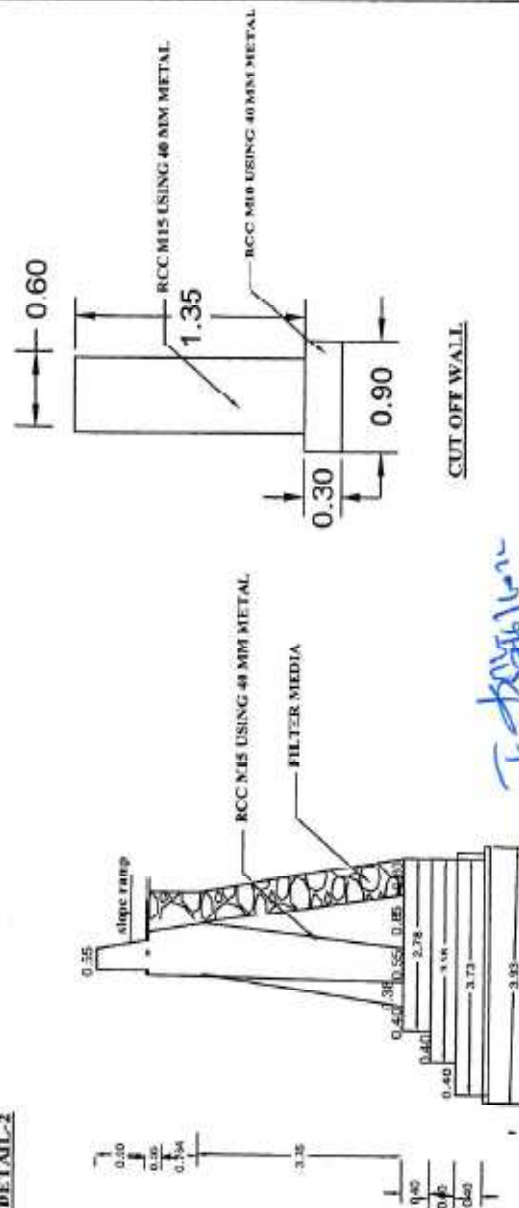
More
T. Dany
22/6/11
ASSISTANT ENGINEER, W.R.D., P.W.D.
IRRIGATION (SPECIAL) SECTION
THUCKALAY- 629 175

PLAN SHOWING THE PROPOSED IMPROVEMENTS TO THAI AKULAM AND MANAVALAKURICHI BIG TANK IN MANAVALAKURICHI VILLAGE OF KALKULAM TALUK IN KANYAKUMARI DISTRICT



SPECIFICATION

- (1) ABUTMENT AND WING WALL IN CC M15 NOMINAL USING HBG
- (2) EED BLOCK CUM DIRT WALL IN RCC M20 DESIGN MIX HBG
- (3) PIER IN M15 USE 40MM METAL
- (4) EED BLOCK OVER PIER IN RCC M30 DESIGN MIX USING HBG
- (5) DECK SLAB IN RCC M30 DESIGN MIX USING HBG
- (6) BASE COURSE IN CC M10 NOMINAL MIX 1:3:6 USING 40MM HBG
- (7) APPROACH SLAB IN RCC M20 USING HBG
- (8) WEARING COAT IN VIBRATED CC M20 USING IRC GRADING 75MM
- (9) ALL DIMENSIONS ARE IN" M"



CROSS SECTION OF RETURN WALL

ASSISTANT ENGINEER, DISTRICT
IRRIGATION (SPECIAL) SECTION
THUCKALAY- 629 175

ALL DIMENSIONS ARE IN "M"

SCALE 1:50

SCALE 1:50

SCHEDULE OF REINFORCEMENT

TYPE OF BAR	SPACING mm	LENGTH mm	No. OF BARS	TOTAL LENGTH m	UNIT WT kg/m	TOTAL WT kg	SHAPE OF BARS (see in scale)
SPAN-3 m effective							
a	8	150	3310	51	165.81	0.39	66
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	24	177.98	0.39	70
b1	8	150	7412	14	103.77	0.39	41
TOTAL						216 kg	say 0.22 t

SPAN-4 m effective							
a	8	150	4310	51	219.51	0.39	86
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	30	222.36	0.39	87
b1	8	150	7412	14	103.77	0.39	41
TOTAL						253 kg	say 0.26 t

SPAN-5 m effective							
a	8	150	5310	51	270.81	0.39	106
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	37	274.24	0.39	107
b1	8	150	7412	14	103.77	0.39	41
TOTAL						295 kg	say 0.30 t

SPAN-6 m effective							
a	8	150	6310	51	321.81	0.39	126
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	43	318.72	0.39	125
b1	8	150	7412	14	103.77	0.39	41
TOTAL						331 kg	say 0.34 t

SPAN-7 m effective							
a	8	150	7310	51	372.81	0.39	146
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	50	370.60	0.39	145
b1	8	150	7412	14	103.77	0.39	41
TOTAL						371 kg	say 0.38 t

SPAN-8 m effective							
a	8	150	8310	51	423.81	0.39	166
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	57	422.45	0.39	165
b1	8	150	7412	14	103.77	0.39	41
TOTAL						411 kg	say 0.42 t

SPAN-9 m effective							
a	8	150	9310	51	474.81	0.39	186
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	64	474.39	0.39	185
b1	8	150	7412	14	103.77	0.39	41
TOTAL						451 kg	say 0.46 t

SPAN-10 m effective							
a	8	150	10310	51	525.81	0.39	206
a1	8	150	1000	100	100.00	0.39	39
b	8	150	7412	70	519.84	0.39	203
b1	8	150	7412	14	103.77	0.39	41
TOTAL						459 kg	say 0.50 t

REFERENCE DRAWINGS
 a) GENERAL NOTES : SQ-001
 b) DETAILS OF DRAINAGE SPOUT
 & WEARING COAT OVER
 DECK SLAB : SQ-701

OFFICE OF THE CHIEF ENGINEER (H)	
PLANNING, DESIGN & INVESTIGATION, CUMMINS, CHENNAI - 600029	
STANDARD DRAWINGS FOR RCC SOLID SLAB BRIDGES (SQUARE)	
EFFECTIVE SPAN 3m - 10m	
WEARING COAT OVER DECK SLAB - SCHEDULE OF REINFORCEMENT	
DATE 15.04.2024	SCALE 1:100
DESIGNED BY J. Jeyaraj	CHECKED BY J. Jeyaraj
DATE 15.04.2024	SCALE 1:100
SQ-702	

ASSISTANT ENGINEER, W.R.D., P.W.D.,
IRRIGATION (SPECIAL) SECTION
THUCKALAT- 629 175

NOTES:-

1. ALL DIMENSIONS ARE IN "mm", UNLESS OTHERWISE MENTIONED.
2. DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
3. REFERENCE DRAWINGS:
GENERAL NOTES : SQ-001
ABUTMENT & : SQ-001 to 008 &
RETURN WALLS : SQ-011 to 018

<p>OFFICE OF THE CHIEF ENGINEER (II) PLANNING, DESIGN & INVESTIGATION, GUJ. CHEN.</p>		<p>STANDARD DRAWINGS FOR RCC SLAB BRIDGES (SQUARE) WITH SAFETY KERB</p>	<p>EFFECTIVE SPAN - 3m to 10m</p>	<p>REINFORCEMENT DETAILS OF BEDBLOCK CUM DIRT WALL</p>	<p>APPROVED BY</p> <p>DATE</p>
<p>ITEM</p>	<p>EXTENSION USE (If)</p>				<p>DATE</p>

Figure 10: Detail of column and beam joint. The diagram shows a cross-section of a column-beam joint. The column has a diameter of 30 inches (762 mm). The beam has a height of 24 inches (610 mm). The joint is reinforced with 8 #2 bars at 200 c/c on both faces of the column. The beam is reinforced with 2 #2 bars at 100 c/c. The joint is also reinforced with 2 #2 bars at 100 c/c. The joint is labeled with dimensions and reinforcement details.

CROSS - SECTION

