



GOVERNMENT OF TAMILNADU

**LOWER VAIGAI BASIN CIRCLE,
SIVAGANGAI**

**TENDER SCHEDULE
(ITEM RATE SYSTEM LUMP SUM CONTRACT)**

NAME OF WORK:	Standardisation of Kattupudu Ex-Zamin Tank in Aranmanai Siruvayal Village of Kallal Block in Karaikudi Taluk of Sivagangai District
--------------------------	--

TENDER SCHEDULE

Issued to Thiru/ Thirumathi / Thiruvalargal

Number of Pages in the Schedule : **77 (Seventy Seven)**

Number of items in the Schedule : **28 (Twenty Eight) Items.**

Superintending Engineer, WRD.,
Lower Vaigai Basin Circle, Sivagangai.

TENDER NOTICE
(For ITEM RATE Lump sum Contract)

(as amended in G.O.M.S.618PW dt.30.4.85.,1660PWD dt.12.1088 and 813 PWD dt.28.4.89)

1. On behalf of the Governor of TamilNadu, tenders will be received by the Superintending Engineer, Lower Vaigai Basin Circle, Sivagangai at his office at Sivagangai up to 3.00 P.M. on **27.07.2022** and opened on the same day at 3.30 PM for the work of **“Standardisation of Kattupudu Ex-Zamin Tank in Aranmanai Siruvayal Village of Kallal Block in Karaikudi Taluk of Sivagangai District.”**

1.1. The tenders should be in the prescribed form obtainable from the Superintending Engineer, office. The tenders will be opened by the Superintending Engineer, Lower Vaigai Basin Circle, Sivagangai at 3.30 PM at the place and the date afore mentioned.

1-2. The tenderers or their agents are expected to be present at the time of opening of tenders. The tender receiving office 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 them. 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, Lower Vaigai Basin Circle, Sivagangai the name and address of the tenderer and the name of the work being noted on the cover.

2-1. If the tender is made by an individual, it shall be signed with his full name and his address shall be given. If it is made by a firm, it shall be signed with the co-partnership name by a member of the firm, who shall also sign his own name and the name and address of each member of the firm shall be given. If the tender is made by a Corporation, it shall be signed by a duly 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 therefore. 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 of partnership firm, it will be necessary to produce the certificate aforementioned for the proprietor or proprietors and for each of the partner 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 occasion on which the said certificate was produced, are given.

3-3. All tenders received without certificate as afore mentioned will be summarily rejected.

4. Each tenderer must pay, as earnest money, a sum of **Rs. 39500/-(Rupees Thirty Nine Thousand and Five Hundred only)** on behalf of the **Executive Engineer, WRD Ex Zamin Tanks Standardisation Division, Karaikudi**, and enclose with his tender. The earnest money deposit can also be paid in any other form as may be approved by the State Government from time to time, as per Para 155 of T.N.P.W.D. Code. This earnest money will be refunded to the unsuccessful tenderer on application, after intimation is sent of rejection

of the tender or at the expiration of three months from the date of tender, whichever is earlier. This refund will be authorised by Executive Engineer of suitable endorsement. The earnest money will not be received in cash or currency notes by the WRD Officers.

4-1 The earnest money will be retained in the case of the successful tenderer and will not carry any interest. It will be dealt with as provided in the tender.

5. (i) The tender will remain valid for a period of ninety days from the last date for receipt of tender. The validity period can be extended further, if the contractor gives his consent in writing, specifying the period of extension.

(ii) The tenderer whose tender is under consideration shall attend the Superintending Engineer's before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the specified period, his tender will not be considered. He shall forthwith, upon and intimation being given to his of acceptance, of his tender by the officer duly authorised in his behalf under article 299(1) of the constitution, herein after 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 earnest deposit already deposited with the tender, it would be sufficient to pay the balance amount to make up to 2% of the value of contract for the purpose of security deposit. The Security Deposit together with earnest money deposit together with earnest money deposit and the amount withheld according to clause 64-1 of General conditions of the Contract, shall be retained as Security for due fulfilment of contract,

(iii) On receipt of written communication of acceptance of the, if the tenderer failed to pay requisite security deposit within the period specified in the written communication or backs out from the tender withdrawn his tender, the earnest money deposit shall be forfeited to the Government. If the Contractor fails to carry out the contract, after paying the requisite deposits, then he will be liable for the excess expenditure if an incurred to complete the work as contemplated in the General Conditions to the 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. Hence, for this purpose, the tender documents i.e. tender notice, tender offered by the Contractor, General conditions to the Contract, special conditions to the contract, negotiation correspondences, written communication of acceptance of tender etc., shall constitute a valid contract and that will be foundation of the rights of 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 clearly the Tamilnadu Building Practice and also the General conditions to 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 drawings 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, plan, descriptive specification sheet regarding materials etc. can be seen at any time between 10.00 A.M. and 5.45 P.M. on office days in the office of the Superintending Engineer Lower Vaigai Basin Circle Sivagangai.

7. The tenderers attention is directed to the requirements for materials under the clause "materials Workmanship" in the General conditions to the Contract. Materials conforming to the I.S.I. Standards shall be used on the work and the tenderer shall quote his rates accordingly.

8. Every tenderer is expected before quoting his rates, to inspect the site of the proposed work. He should also inspect the quarries and satisfy himself about the quality and availability of materials. The best class of materials to be obtained from the quarries or other sources 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 this tender notice or as required by the Executive Engineer in any case shall be submitted for the Executive Engineer's approval, before the supply to site of work is begun. If the contractor after examination of the source of materials defined in the Descriptive Specification sheet is of the opinion that materials complying with the standard or other specifications of the contract cannot be obtained in equality or sufficient quantity from the source defined in the descriptive specification sheet, he shall so state in his tender and state where from he intends to obtain materials, subject to the approval of the Executive Engineer,

8-1. The Government will not, however after acceptance of contract rate, pay any extra charges for lead or for any other reason in case the contractor is found later on to have mis – judges the materials available. Attention of the contractor is directed to the "General Conditions to the Contract" regarding payment of seignorage, tools etc.

9. The Tenderer's particular attention is drawn to the sections and clauses in the General Conditions to the Contract dealing with:

1. Test, inspection, and rejection of defective materials and work.	5 clearing up during progress and for delivery
2. 2Carriage	6 Accidents
3. 3.Construction plant	7 Delays
4. Water and lighting.	8 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, deductions of the **Executive Engineer, WRD., Ex Zamin Tanks Standardisation Division, Karaikudi** of the Superintending Engineer Lower Vaigai Basin Circle Sivagangai as set forth in the conditions of contract. The tender will, however, base his lump sum 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 paisa. The rates should be written both in words and figures and the units in words.

The tender should also show the totals of each item and the grant total of the whole contract and quote in the tender, a lump sum for which he will undertake to do the whole work, subject to the conditions of contract, such lump sum agreeing with the total amount of schedule-A. This schedule accompanying the lump sum tender shall be written legibly and free from erasures, over writings or conversion of figures. Corrections where unavoidable should be made by crossing out, initialling dating and rewriting.

10.1. In the event of the work being transferred to any other Circle/ Division/ Sub Division, the Superintending Engineer/ Executive Engineer/ Assistant Executive Engineer who is in charge of Circle/ Division/ Sub Division having jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favour of Government.

11. Tenders offering a percentage deduction from or increase on the estimate amount (Except in the case of tender for maintenance and repaired work, 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 current schedule rates or the Public works Department estimate. However

in case of tenders called for under percentage rate tender system, the tenderer should work out his own rate, but quote his percentage rate above or below the total estimated cost of 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. Tenderer must accept the materials at these prices and shall quote their price for finished work accordingly. Notwithstanding any subsequent change in the market value for these materials, the charge to the contractor will remain as originally entered in the written contract. No centage or incidental charge 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 work, the rate of progress and the dates for the completion of the whole work and its several parts. The following rates of progress and proportionate value of work 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 this programme will be the date on which the site (or premises) is handed over to the contractor.

Period after date of commencement	Percentage of work completed based on contract lump sum amount.
First Three months	30%
Second Four months	70%
Total Six (07) months	100%

Note: The period to be entered in column 1 for the purpose of defining the rate of progress may be fixed by the Superintending Engineer 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 / Executive Engineer or other sanctioning authority reserves the right to reject any tender or all the tenders without assigning any reason therefore.

18. The tenderer who are themselves not professionally qualified shall undertake to employ qualified technical men at their cost to look after the work. The tenderer should state in clear terms whether they are professionally qualified or whether they undertake to employ technical men required by the department, specified in the schedule below for the work. In case the selected tenderer is professionally qualified or has undertaken to employ technical men under him, he should see that one of the technically qualified man 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 work etc.

	Value of Contract	Qualification and No. of Technical Assistant to be employed
1	From one lakh to Rs.5.00 lakhs	1)One Diploma holder in Civil Engineering (OR) 2)Not less than one retired Junior Engineer
2	From Rs.5.00 lakhs to 10.00 lakhs	1)One B.E. (Civil) (OR) 2)Equivalent degree holder (OR) 3)Not less than one retired AEE / ADE (OR) 4)One diploma holder with three years experience

3	From Rs.10.00 lakhs to 25.00 lakhs	1) One B.E (Civil) with 3 years experience plus One diploma holder in Civil Engineering. (OR) 2)Equivalent degree holder with 3 years Experience plus one diploma holder In Civil Engineering (OR) 3)Not less than One retired AEE/ A.D.E plus one diploma holder in Civil Engineering (OR) 4) Two diploma holders in Civil Engineering with 3 and 5 years experience respectively.
4	From Rs.25.00 lakhs to 50.00 lakhs	1) One B.E (Civil) with 3 years experience plus two diploma holder in Civil Engineering. (OR) 2)One B.E (Civil) with 3 years experience plus two retired Junior Engineers (OR) 3) Equivalent degree holder with 3 years experience plus one diploma holders In Civil Engineering or two retired Junior Engineers. ((OR) 4)One retired AEE or ADE Plus two diploma holders in Civil Engineer (OR) 5) One retired AEE or ADE Plus two retired Junior Engineer.
5	Above Rs.50.00 lakhs	Project Manager 1 No- B.E (Civil) with 5 years Experience Site Engineer 2 No- B.E (Civil) with 3 years experience Supervisor 3 Nos - diploma holders In Civil Engineering 5year Experience

Note: A penalty of Rs.2,000/- per month, for diploma holder and Rs.5,000/- per month for degree holder be levied in case of default on the part of contractors in following the norms laid down above.

(iii) Note: The employment of Technical Assistant could be based only on the value of contract.

(a) Engineers with mechanical engineering qualification, retired from civil engineering qualification, retired from civil engineering department are also suitable to supervise the civil engineering works, because of their experience in civil engineering field.

(iv) Note: In case the contractor who is professionally qualified is not in a position to remain always at the site of work and to pay extra attention to such work as may demand special attention, he should employ technically qualified man as prescribed above.

(v) Note: It will not be incumbent on the part of the contract or to employ Technical assistant 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/ Assistant is not required for the due fulfilment of the contract.

19. Tenderer who have already registered themselves as P.W.D. Contractors shall furnish evidence of good record and capacity to do works.

20. A Tenderer submitting a quotation which the tender acceptance authority considers excessive and / or indicative of the insufficient knowledge of current prices or definite attempt to profiteering will render himself 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 of materials. Price permissible for the tenderer to charge a private purchaser, under the provision of clause 8 of hoarding and profiteering 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 after employment to ex-toddy tappers as far as possible. The number of ex-toddy tappers to whom he can so offer employment should be mentioned

in the tender and he should undertake in the agreement to offer such employment to such number

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

22. The Contractors shall comply with the provisions of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the competent authority, may at his discretion, a cancel the contract or invoke any of the penalties for the breach of contract provides in the 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 there under 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.Lakhs and up to Rs.3.00Lakhs	1.Building Constructor	1
	2.Birck layer	1
Above Rs.3.00 Lakhs and Up to 10.00 Lakhs	1. Building Constructor	1
	2. Brick layer	1
	3.Diploma holder in Civil Engg.	1
Above Rs.10.00 Lakhs and Up to 50.00 Lakhs	1. Building Constructor	1
	2. Brick layer	1
	3.B.E. Civil or equivalent degree holder	1

22.1 Unless the contractor has been exempted from engagement of apprentices by the director of employment and Training / State Apprenticeship advisor, a Certificate to the effect that "The Contractor had discharged his obligation under the said Act, satisfactorily" should be obtained from the Director of Employment and Training / State Apprenticeship Advisor and the same should be produced by the Contractor for final payment in the settlement of the contract.

23. In case of contracts for construction of buildings either permanent or semi-permanent buildings, a sum equivalent to 50 % of the value of work done will be retained with the 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 on Indemnity Bond by the Contractor for a further period of three years. The contractor shall be liable to set right all defects arising out his faulty execution or substandard work noticed during the above five year period at his cost.

Station:
Date:

Superintending Engineer, WRD
Lower Vaigai Basin Circle, Sivagangai.

SPECIAL CONDITIONS.
(Accompanying Tender Notice)

1. Postal Tender:

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

2. Earnest Money Deposit:

2.1 The earnest money deposit can also be paid in any form as may be approved by the State Government, from time to time as per Para 155 of TN PWD code (i.2.,) Deposit at call receipt, Demand Draft of the Nationalised and schedule Banks drawn in favour of the **Executive Engineer, WRD, Ex Zamin Tanks Standardisation Division, Karaikudi** Demand Draft payable at **Karaikudi**.

Subject to the Specific condition that the successful tender should pay the security deposit (including E.M.D) in the form of small saving scrips/ deposits/ accounts duly pledged in favour of Executive Engineer in lieu of other mode of payment made for E.M.D.

Particulars of Earnest Money Deposit Produced.

Sl. No.	Details of IVP/NSC/ Other Form	Denomination (Purchase value) Rs.	No.of Scrips	Total Amount Rs.
01				
02				
03				

3. The tenderer should furnish the following details without any omission:

- 1. Consent letter from the Technical Assistant.
- 2. The residential/ official address of the technical Personnel.
- 3. The qualification and the year in which the technical personnel passed the required examination (along with attested copy of certificate).
- 4. Attested copy of experience certificate of the technical personnel.

Contractor

TENDER.
(for Item Rate L.S. Contract)

(As amended in G.O.M.s No.618 PW dated.30.04.85 and 660 PWD dt.12.10.88)

To.

His Excellency the Governor of TamilNadu
represented by the **Superintending Engineer, WRD.,**
Lower Vaigai Basin Circle, Sivagangai.

Sir,

I/we do hereby tender and if this tender be accepted, undertake to execute the following works, viz **and "Standardisation of Kattupudu Ex-Zamin Tank in Aranmanai Siruvayal Village of Kallal Block in Karaikudi Taluk of Sivagangai District."** as shown in the drawings and describing in the specifications prescribed by the Superintending Engineer/ Executive Engineer of Lower Vaigai Basin 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 Rs.

or such other sums as may be arrived at under the clause of the General conditions to the contract relating to payment n lump sum basis or by final measurements at unit prices.

2. I/we have also completed the priced list of 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 to the Contract.

3. I/we do hereby distinctly and expressly declare and acknowledge that, before the submission of may or out tender, I/we have carefully followed the instructions in the tender notice and have read the TamilNadu Building practice and the General Conditions to the Contract therein and the TamilNadu Building practice addenda volume and that I/we have made such examination of the contract documents and of the plans, specification quantities and of the locations, 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 me/us to thoroughly understand the intention of same and the requirement , covenants, stipulations and restrictions contained in the contract and in the said plans and specifications 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 Public Works Department contractors _ _ _ _ _

I/We have already produced an income tax verification certificate during the current calendar year in respect of 2012 - 2013 (here particulars of the previous occasions on which the certificate was produced should be given). The illegal address of the contractors for service of all letters and notices will be as follows

5(i) I/we enclose herewith the Patras for the payment of the sum of Rs.....earnest money.

5,(i)(b)I/we have paid Rs.....(Rupees.....only) against the E.M.D. of Rs.....since I am /we are.....and eligible to pay the E.M.D CONCESSIONAL RATES.

5(l)(C) In lieu of cash deposits, I/we.....have enclosed a bearing No.....date.....issued by.....for a value of Rs.....(Rupees.....only)drawn endorsed/ pledged in favour of the Executive Engineer.....Division.

5(i)(d) Iam /we are.....and hence exempted from payment of E.M.D.

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 two months from the date of this tender, whichever is earlier. If my/our tender is accepted the

earnest money shall be retained by the Government as security deposit for the due fulfilment of contract. If upon intimation 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/us hereunder shall be sufficiently served on me/us if delivered to me/us personally or forwarded to me/us by post (registered or ordinary) or left at my/our address given herein. Such notice shall, if sent by post be deemed to have been served on me/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 schedule, General conditions to the contract and special conditions of the tender, negotiation letter, communication of acceptance of tenders, shall constitute the contract for this purpose and be the foundation of rights of both the parties, as defined in clause 5. (iv) of tender notice, provided that, it shall be open to the accepting authority to insist on execution of any written agreement by tenderer, if administratively considered necessary or expedient

8. I/we have also signed the copy of the TamilNadu Building practice and National Building code and addenda volume thereto, maintained in the Lower Vaigai Basin Circle office, in acknowledgement of being bound by all conditions of the clauses of the General Conditions to the contract and all specifications for items of works described by a specification "A"

9. In consideration of the payment of Rs.

or such other sum as may be arrived at under the clause of the General to the Contract, relating to payment on lump sum basis or by final measurement at unit prices. I/we agree subject to said conditions to execute and complete the works shown up on the said drawing serially from Number 1 to 20 inclusive (Schedule B) and described in the specification (Schedule C) and to the extent of probable quantities shown in(Schedule A) with such variations by way of additions to or alternations, deductions from, the said works and method of payment therefore as are provided for in the said conditions.

10.1. The term " "Executive Engineer" in the said conditions shall mean the public works officer in charge of the divisions having jurisdiction for the time being over the work, who shall be competent to exercise all the powers and privileges reserved herein 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 authorised under article 299 (1) of the constitution.

10.2. In the event of the work being transferred to any other Circle/Division/ Sub Division, the superintending Engineer/ Executive Engineer/ Assistant Executive Engineer who is in charge of Circle/ division/ Sub Division having jurisdiction over the work shall be competent to exercise all the powers and privileges reserve in favour of the Government.

11.1 I/we agree that the time shall be considered as the essence of this contract and to commence the works 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 **Seven (07) months** 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 Provision for extension of time contained in clause 56 of General conditions to the Contract appended to the Tamil Nadu Building Practice.

12. I/we agree that upon the terms and conditions of this contract being fulfilled and performed. to the satisfaction of the Executive Engineer, the security deposited by me/us as herein before recited or such portion thereof as I/we may been entitled to, under the sand conditions be paid back to me/us as provided in clause 64 of the General conditions to the contract.

13. I am /we are professionally qualified and my/our qualifications are as follows. I/we in pursuance of clause 18 of tender notice undertake to employ the following technical Staff for supervising the work and will see that one of them is always at site during working hours personally checking all items of works and paying extra attention to such works as may require special attention (e.g.,) reinforced cement concrete.

Sl. No. 1	Name of technical staff Proposed to be employed 2	Qualification 3	Experience 4
1			
2			
3			

14. I/we agree that the arbitrator for fulfilling the duties set for the in the arbitration clause of the General conditions to the contractor shall be the Superintending Engineer of the Periyar Vaigai Basin Circle, Madurai in case the value of claim does not exceed Rs.50,000/- (Rupees fifty thousand only)

Signature of the contractor with date

Acceptance order

On behalf of the Governor of TamilNadu and as duly authorised by the Governor under Article 299 (1) of the constitution the above tender for a value of Rs.

is accepted on this day.....after negotiation.

Signature of the witness
in full and address with
name in block letters

Signature and Designation

ARTICLES OF AGREEMENT

AGREEMENT made thisday2013

between the Executive Engineer/Superintending Engineer on behalf of Governor of Tamil Nadu (here in after called the Governor which expression shall where the context so admits include his successors in-office and assigns) of the one part and *

(here in after called the Contractor which expression shall where the context so admits include his heirs, executors administration and legal representatives) of the other part.

WHEREAS the Government of Tamil Nadu (Here in after called the Government) are desirous of **“Standardisation of Kattupudu Ex-Zamin Tank in Aranmanai Siruvayal Village of Kallal Block in Karaikudi Taluk of Sivagangai District.”** and have caused an estimate of probable quantities contained in schedule A, drawings and specifications describing the work to be done to be prepared.

AND WHEREAS the contractor has agreed to the retention by the Government of the earnest money of Rupees, paid by him when he submitted his tender as security for the due fulfilment of the contract to the satisfaction of the **Executive Engineer, WRD, Ex Zamin Tanks Standardisation Division, Karaikudi** (hereinafter referred to as “ the Executive engineer”)

And whereas the Contractor has deposited with the Executive Engineer, the sum of Rs. (Rupees only) in the shape of One year Term Deposit and 5 years IVP as additional security for the due fulfilment of the contract to the satisfaction of the Executive Engineer.

And whereas the contractor has agreed to executive upon and subject to the conditions set forth in the General conditions of the contract of the Tamil Nadu Building Practice such other conditions as are contained in all the specifications forming part of this contract (here referred to as ; the said conditions”) the works shown upon the drawings and described in the said specifications and set for the in Schedule A as the “ Probable quantities” and comply with rate of progress noted at the end of this Articles of Agreement for a sum of Rupees”

or such other sum as may be arrived at under the clause of the General Conditions of the contract relating to “ Payment on lump-sum basis or by final measurement at unit prices”

I witness whereof the Contractor

has here unto set his hand and Superintending Engineer of Lower Vaigai Basin Circle at Sivagangai on behalf of any by the order and direction of His Excellency the Governor of Tamil Nadu has hereunto set his hand the day and year first above written.

Signed by Contractor.
Address.

In the presence of Witness

signed by on behalf of Government
designation –

In the presence of witness.

* Contractor's Name

** Contractor's legal address for registered letters and notices.

*** Name of work and locality.

****Name of the officer.

SCHEDULE A
SCHEDULE OF RATES AND APPROXIMATE QUANTITIES
(Enclosed Separately)

a) The Quantities here given are these 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 or omissions according to the conditions of the contract as set for the in the General conditions the contract of Tamil Nadu Building Practice and other conditions or specifications of this contract.

b) 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 place and finished according to the drawings or as may be ordered from 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 inside and complete in every respect.

SCHEDULE – B

LIST OF DRAWING

Note : All drawings to be signed by the contractor as well as the officer entering in to the contract

SUPPLEMENTAL LIST OF DRAWINGS

as referred to in the specifications including the general conditions to the Contract of TamilNadu Building Practice.

Sl.No.	Description	No.of Drawings.
1.	Index Map	1 No.
2.	Typical Cross Section for Tank Bund	1 No.
3.	Typical Section for Sluice	1No.
4.	Typical Drawing for Weir	1 No.
5.	Typical section for Supply Channel	1 No.
6.	Typical Section for Surplus Course	1 No.
7.	Typical Plan of Recharge Shaft, Typical Cross Section of Recharge Shaft, Details of Circular Wall.	1 No.

SCHEDULE - A

Name of work : “Standardisation of Kattupudu Ex-Zamin Tank in Aranmanai Siruvayal Village of Kallal Block in Karaikudi Taluk of Sivagangai District.”

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
1.	13500.00 M ² (Thirteen Thousand and Five Hundred square metres)	Cleaning juliflora jungle without uprooting and disposing of the same completes complying with standard specification and as directed by the Engineer in charge of works	1 M ² (One square metre)		
2	13420.00M ³ (Thirteen Thousand Four Hundred and Twenty cubic metres)	Earthwork in all soils except hard rock requiring blasting and conveying with a lead of 0 to 100 m by deploying earth moving machineries and tippers for formation of bund in layers of suitable thickness, depending upon type of compaction equipment deployed, and not exceeding 23 cm thickness, benching of slopes prior to placement of earth fill, including extra earth filling, breaking clods, watering to OMC and compaction of each layer to 95% of Proctor density through deployment of appropriate compaction equipment 8-10 tonne power roller; vibratory power roller; short width (+/- 0.90 m width drum) power roller or vibratory power roller ensuring compaction of designed bund section and also ensuring compaction of earth fill and side slopes through the deployment of hydraulic excavators with steel plate fixtures attached to their booms / heavy power rollers capable of climbing 1.5 (Horizontal) : 1.00 (Vertical) slope including side slopes as directed by the engineer in charge of works and as per technical specifications.	M ³ (One cubic metres)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
3	30.00 Nos (Thirty Numbers)	Supplying demarcation R.C.C. pre-cast post in Cement concrete M20 grade with well graded aggregates and the nominal maximum size of coarse aggregate of size 20 mm of size 0.23 x 0.23 x 1.05 m and fixing the post 40 cm depth below ground level, the post includes 4 numbers of 8 mm RTS main rod to a length of 1.00 m, using 6 mm MS 8 numbers as stirrups with steel centering and painting the post with enamel paint to a height of 0.45 m alround the post etc., complete and conveying the post to the site of demarcation boundary such as tank bund and foreshore including earth work excavation for foundation in HSC, having the base palin cement concrete of 15 cm of grade M10 concrete using 40mm and the post embedded by using cement concrete M15 grade with well graded aggregates and the nominal maximum size of coarse aggregate of 20 mm for a height of 60 cm etc, complete as directed by the Engineer in charge of works and as per the technical specification	1 No (Number)		
4	768.30 M ³ (Seven Hundred and Sixty Eight Point Three Zero cubic metres)	Earth work excavating and depositing on bank with a initial lead of 10 m & initial lift of 2 m in Hard stiff clay, stiff black cotton, hard red earth, shales, murrums, gravel, stoney earth and earth mixed with small size of boulders etc.,	M ³ (One cubic metres)		
5	61.60 M ³ (Sixty One Point Six Zero cubic metres)	Dismantling without damaging the near by structures if any, clearing away and carefully stacking materials useful for reuse for any thickness of wall in Brick or stone masonry in cement mortar walls under 3 m high etc., complete complying with standard specification and as directed by the departmental officers (B14)	1 M ³ (One cubic metre)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
6	45.50 M ³ (Forty Five Point Five Zero metres)	Dismantling without damaging the near by structures if any, clearing away and carefully stacking materials useful for reuse for any thickness of Plain cement concrete complete complying with standard specification and as directed by the Engineer in charge of work. (B35)	1 M ³ (One cubic metre)		
7	219.20 M ³ (Two hundred and Nineteen Point Two Zero metres)	Earthwork excavation for foundation in hard stiff clay, stiff black cotton, hard red earth, shales, murram, gravel, stoney earth and earth mixed with small size of boulders hard gravelly soil inclusive of shoring to full depth strutting and bailing out water wherever necessary and refilling the sides of foundation with excavated soil other than sand in layers of not more than 15 cm thick, well rammed, consolidated and depositing the surplus earth in places as shown by the departmental officers with an initial lead of 10 (Ten) metres and initial lift of 2 (Two) metres and clearing, levelling the site etc., complete complying with standard specification and as directed by the departmental officers.	1 M ³ (One cubic metre)		
8	66.60 M ³ (Sixty Six Point Six Zero metres)	Collection and Supply of Sand gravel mix 1:1 (one sand and one gravel) ratio for basement / filter zone including stacking, mixing and spreading the sand gravel mix in layers of not exceeding in 150 mm thickness over properly prepared surface, watering and consolidating the same with approved type of compaction equipment including stacking for pre-measurement etc., complete complying with the standard specification and as directed by the Engineer in charge of the work.	1 M ³ (One cubic metre)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
9	91.30 M ³ (Ninety One Point Three Zero metres)	Cement concrete M 15 grade mix using well graded aggregates with maximum nominal size (MSA) of 40 mm and downgraded to IS specified grading and mixing in mechanical mixer and mixing by mixer machine including dewatering by bailing/pumping wherever necessary laying the concrete in layers and in bays with all leads and lifts vibrating, compacting and finishing the surface watering, curing including the cost components of providing rigid and smooth steel centering and strutting wherever necessary for various depth and height below and above ground level so as to attain the profile and strength specified in the drawings as per the direction of the Engineer and complying with standard specification. (without vibration)	1 M ³ (One cubic metre)		
10	52.50 RM (Fifty Two Point Five Zero Running Metres)	Supplying, Laying, Jointing and fixing in position of R.C.C. Hume pipes of NP 3 class of 900 mm dia including labour charges and jointing materials etc., complete complying with standard specification and as directed by the Engineer in charge of the work.	1 Rm (One Running Metre)		
11	1.60 M ³ (One Point Six Zero cubic metres)	Supplying and fixing cut stone roughly dressed to size all faces and set in cement mortar 1:3 (One cement and three sand) including all incidental charges such as finishing and curing etc., complete complying with standard specification and as directed by the departmental officers.	1 M ³ (One cubic metre)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
12		Providing and placing in position of Plain Cement Concrete M15 using hard broken granite course aggregate (well graded) of nominal maximum size of 20mm graded to I.S. Specification grading (to achieve the specified characteristic strength of 15 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. (Without Vibration)			
a.	77.50 M ³ (Seventy Seven point Five Zero cubic metres)	Centering without strutting (up to basement)	1 M ³ (One cubic metre)		
b.	508.10 M ³ (Five Hundred Eight point One Zero cubic metres)	Centering with strutting	1 M ³ (One cubic metre)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
13	300.20 M ³ (Three Hundred Point Two cubic metres)	Providing and placing in position of Plain Cement Concrete of M 15 Graded Mix using hard broken granite coarse aggregate (well graded) 60% of nominal maximum size of 40mm and 40% of nominal maximum size of 20mm to I.S Specification grading (to achieve the specified characteristic strength of 15 N / mm ² at 28 days) and mixing the ingredients by using mixer machine including dewatering of the placement site by bailing / pumping and dewatering wherever necessary, laying in 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 drawings 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 vibration)	1 M ³ (One cubic metre)		
14	23.00 M ³ (Twenty Three Point Zero cubic metres)	Providing and placing in position of Plain cement concrete of grade M20 using hard well graded aggregates with the nominal maximum size of coarse aggregate of 20mm weigh batching the ingredients and mixing in approved mixers/batching plant (to produce concrete of the specified characteristic strength of 20N/mm ² at 28 days) including dewatering the placement site by bailing/pumping and by diverting wherever necessary laying the concrete in layers of not exceeding 15cm thick and in bays vibrating, compacting and finishing the surface with all leads and lifts, watering curing complete so as to attain the profile and strength specified in the approved drawing & specifications and as directed by the Engineer in charge of works and as per the technical specifications. (to produce concrete of the specified characteristic strength of 25 N/mm ² at 28 days) Including dewatering of the placement site laying contracting finishing the surface with all leads and lits watering curing complete so as to attain the profile and strength specified in the drawing and specification as directed by the department officers. Without Vibration	1 M ³ (One cubic metre)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
15	34.00 M ³ (Thirty Four Point Zero cubic metres)	Cement concrete M15 grade Mix with well graded aggregates and the nominal maximum size of coarse aggregate of size 20 mm weigh batching the ingredients and mixing in approved mixers/batching plant (to produce concrete of the specified characteristic strength of 15 N/mm ² at 28 days) including dewatering the placement site by bailing/pumping and by diverting wherever necessary laying the concrete in layers and in bays vibrating, compacting and finishing the surface water curing so as to attain the profile and strength specified in the approved drawing and specification and including the cost component of providing rigid and smooth centering and shuttering wherever necessary various heights above and below ground level and as per the direction of the Engineers complying with standard specification. (with vibration)	1 M ³ (One cubic metre)		
16	4.00 Nos (Four Numbers)	Fabricating and supply of country wood plug size of 40 x 40 cm and 45 cm to 60 cm height. The plug rod with 20 mm dia mild steel rod size of 3.0 m to 4.50 m height. The plug top side, middle, centre and bottom side covered iron strap - 3 nos. Plate thickness size 3 mm steel plate. The plug hole size 10 cm to 25 cm dia. etc., including cost of rod, wrought and put up and fixing in correct alignment in position. The plug painted with two coats of Varnish, the rod painted with two coats of best anti-corrosive paint and conveyance to the work site including loading, unloading. The rates should be inclusive of all taxes and duties and including fixing charges etc., complete complying specification and as directed by the Engineer.	1 No (One Number)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
17	375.70 M ³ (Three Hundred and Seventy Five point Seven Zero cubic metres)	Refilling with excavated earth (other than sand) with all leads and lifts for filling the open cut wherever necessary in layers including breaking clods watering and compaction using Power Roller to atleast 95% of Proctor Density at OMC in each layer and sectioning etc as directed by the Engineer in charge of work.	1 M ³ (One cubic metre)		
18	9.25 Qtl (Nine Point Two Five Quintal)	Supplying, fabricating & placing in position of ribbed tor steel grills for Reinforcement of RCC works including cost of steel and binding wire and labour charges for decoiling, cutting, bending and tying the grills complete complying with standard specification. Steel and binding wire will be at the contractor's own cost.	1 Qtl (One Quintal)		
19	280.50 M ² (Two hundred and Eighty point Five Zero square metres)	Supplying and erecting water tight steel centering for sides and soffits including necessary supports with all cross bracings using Mild Steel BG 10 gauge sheets of size 90 x 60 cm stiffened with welded mild steel angles of size 25 x 25 x 3 mm laid over silver oak (country wood) joists of size 75 x 5 cm spaced at about 45 cm c/c and supported by casurina props of 10 cm to 13 cm dia spaced at 75 cm c/c for vertical plain concrete etc., complying with standard specification and as directed by the departmental officers (The retrived materials should be taken back by the contractor) the payment for centering shall be given after the concrete is laid for field bothies and flow measuring device	1 M ² (One square metre)		

Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
20	7.10 M ³ (Seven point One zero cubic metre)	Supplying and filling with the 40 mm H.B.G.S. jelly cost and conveyance materials etc., complete complying with the standard specification and as directed by the Engineer in charge of the works.	1 M ³ (One cubic metre)		
21	7.10 M ³ (Seven point One zero cubic metre)	Supplying and filling with the 20 mm H.B.G.S. jelly cost and conveyance materials etc., complete complying with the standard specification and as directed by the Engineer in charge of the works.	1 M ³ (One cubic metre)		
22	23.00 M ³ (Twenty Three cubic metres)	Earth work open well excavation complying with relevant clauses of T.N.D.S.S. Well sinking and with lead upto 10 metre in hard stiff clay, stiff black cotton soil, hard red earth, shales, murram, gravel, stoney earth and earth mixed with small size boulders hard gravelly soil etc., complete complying with standard specification and as directed by the Engineer in charge of the work. (width upto 2m)	1 M ³ (One cubic metre)		
Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount

23	21.78 M ³ (Twenty one point Eight Zero cubic metres)	Providing steel centering for RCC slabs, beams or plain surfaces including strutting up to 3.00m height using MS sheet, BG .10 gauge thick of size 90 x 60 cm BG 10 gauge stiffened with MS angles of size 25 x 25 x 3 mm laid over silver oak joists of size 10 cm x 6.50 cm spaced at about 90 cm and supported by causerina props of 10 cm to 13 cm dia spaced about 75 cm centre to centre and removing the centering and strutting after specified period without damaging the concrete laid complying with standard specification and as directed by the Engineer.(The retrieved materials should be taken back by the contractor. The payment for centring shall be given after the concrete is laid (For Retaining walls, sluices and Recharge shafts).	1 M ³ (One cubic metre)		
24	26.10 M ³ (Twenty Six Point One Zero cubic metres)	Supplying and filling with the M.sand in 15 cm thick layer including watering compacting cost and conveyance materials etc., complete complying with the standard specification and as directed by the Engineer in charge of the works For sluices, weirs and Retainig wall Specification complete	1 M ³ (One cubic metre)		
25		Drilling of Borewells anywhere in Tamilnadu including transportation from one place to another within Tamilnadu in alluvial soil sedimentary strata of clay and sand stone shale pebbles boulders etc. By first taking a pilot bore of 140 mm/150mm dia and then enlarging to required dia (200mm) direct or reverse rotary mud circulation method using rotary rigs, fuel, labour and drilling bentonite and water required for drilling at site including construction of mud pit.			
Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
a.	40.00 RM (Forty Running Metres)	Drilling of 140 / 150 mm dia Pilot bore upto 60m depth ending below ground level	1 Rm (One Running Metre)		

b.	40.00 RM (Forty Running Metres)	Reaming 140 / 150 mm dia to 300 mm dia bore to 300 mm dia bore upto 60 m Depth ending from ground level.	1 Rm (One Running Metre)		
c.	20.00 RM (Twenty Running Metres)	150 mm dia PVC - Casing pipe as per IS 12818/2010- (Casing Shallow depth upto 80 m)	1 Rm (One Running Metre)		
d.	20.00 RM (Twenty Running Metres)	150 mm dia PVC - Casing pipe as per IS 12818/2010 RS (Ribbed Screen pipe)	1 Rm (One Running Metre)		
e.	1.00 RM (One Running Metre)	160 mm dia PVC End Cap as per IS 10124/1982	1 Rm (One Running Metre)		
Item No.	Quantity (Both in figures and in words)	Description of works	Unit of calculation (Both in figures and in words)	Rate (Both in figures and in words)	Amount
26	40.00 RM (Forty Running Metre)	Labour Charges for inserting PVC Casing pipes assembly (with slots or without slots) in the drilled hole including jointing the pipes with PVC Couplers with Cement paste etc., complete, supply and packing the annular space with pebbles of size and quality as directed by the departmental officers - 150 mm dia Casing pipes assembly	RM (One Running Metre)		
27	2.12M ³ (Two point one two)	Supply delivery of natural Pebbles filter media for Filter bed operation & sedimentary bore well of spherical in shape and allow even distribution in support bed with good flow. The media should be double	1 M ³ (One cubic metre)		

	cubic metres)	washed, screened, kiln dried and classified into various sizes to meet specification including all incidental charges, conveyance, loading & unloading etc., as directed by the Departmental officers Size 5mm to 20mm.			
28	8.00 Hrs (Eight Hours Only)	Charges for developing the Borewell with air compressor of 600 CFM capacity (Minimum 8 Hours) including transportation, labour and fuel charges for compressor as directed by the departmental officers and conducting yield test by "V " notch method.	1 Hr (One Hour)		
				Total	
				GST @ 12%	
				Grand Total	
				Say Rs	

Total No. of items: 28 (Twenty Eight only)

Rupees only)

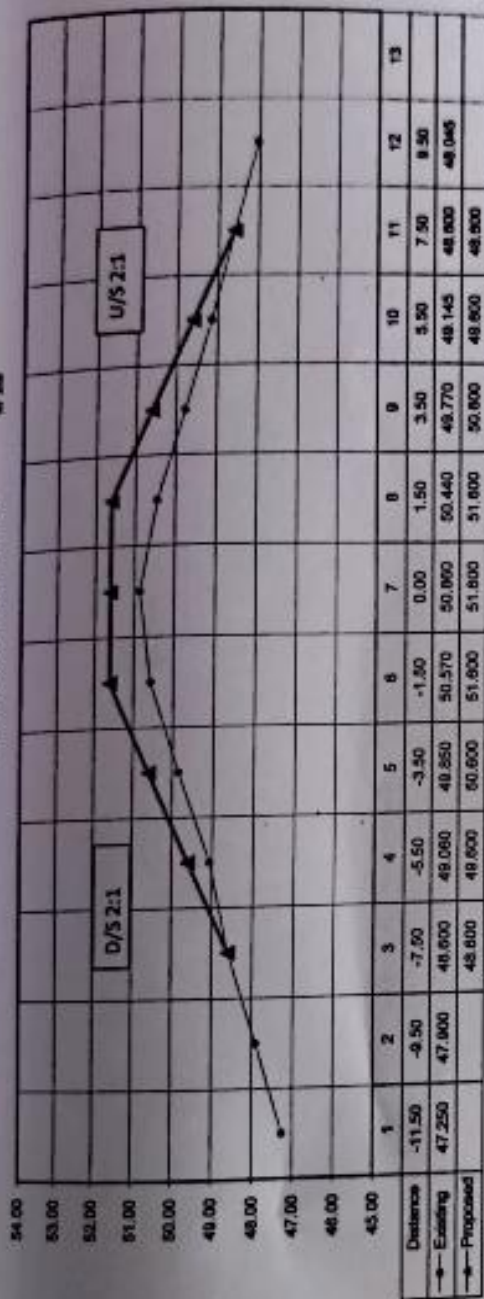
Contractor

Superintending Engineer, WRD.,
Lower Vaigai Basin Circle, Sivagangai.



STANDARDISATION OF KATTUPUDU EX-ZAMIN TANK IN ARANMANAISIRUVAI VILLAGE OF KALLAL BLOCK IN
KARAIKUDI TALUK OF SIVAGANGAI DISTRICT

Bund Cross section at L.S. 9 m



FTL- 50.000 m

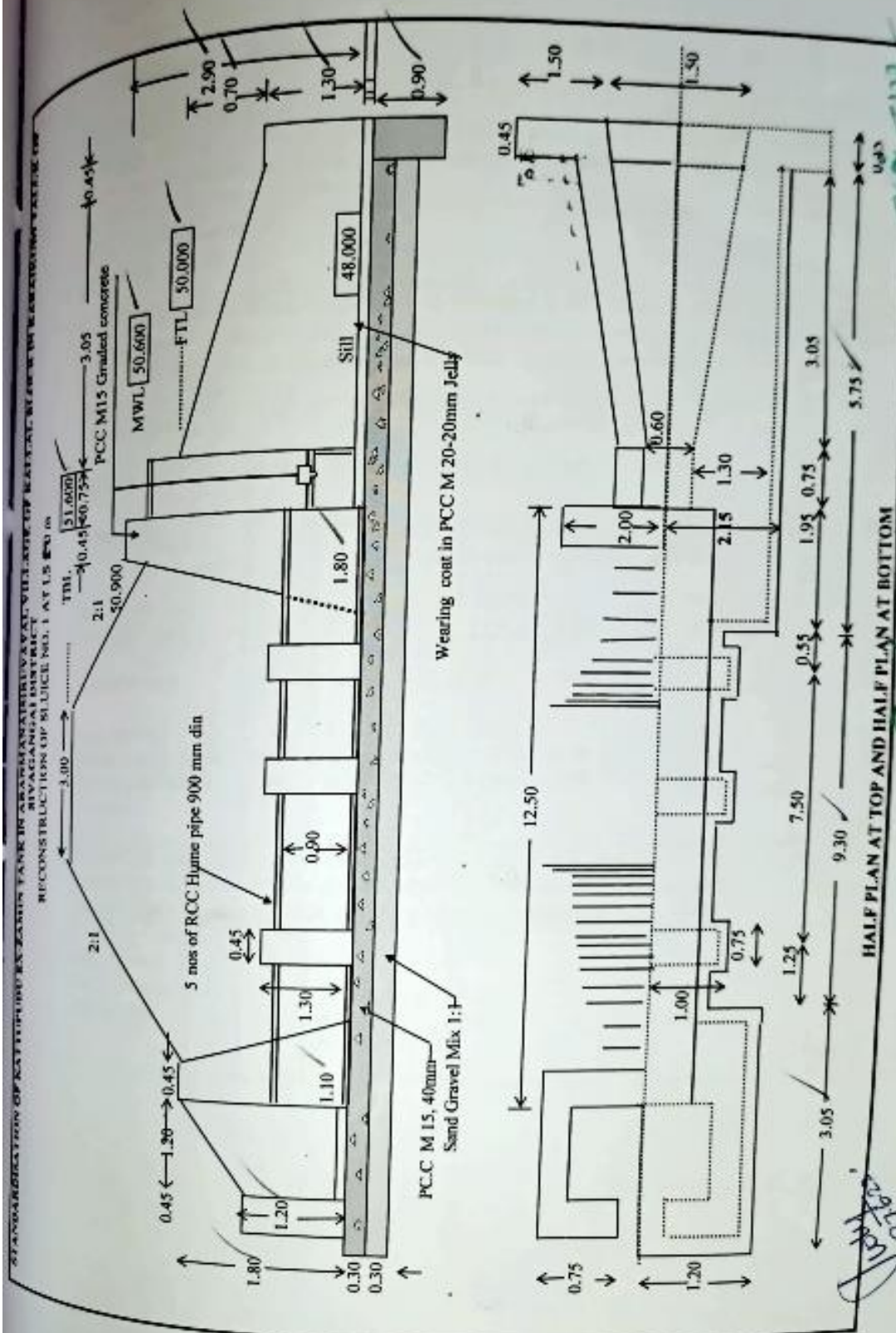
MWL- 50.600 m

TSL- 51.600 m

Top width- 3.00 m

Front Slope- 2:1 m

Rear Slope- 2:1 m

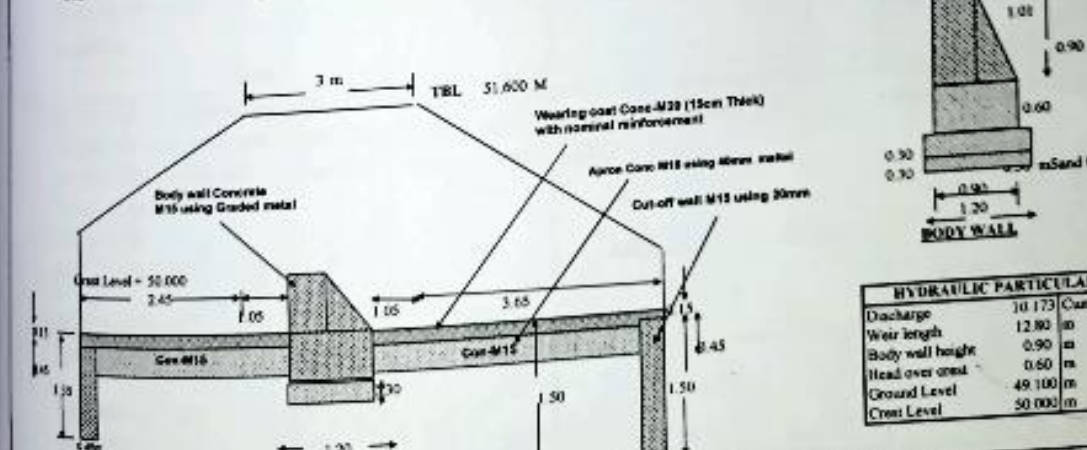
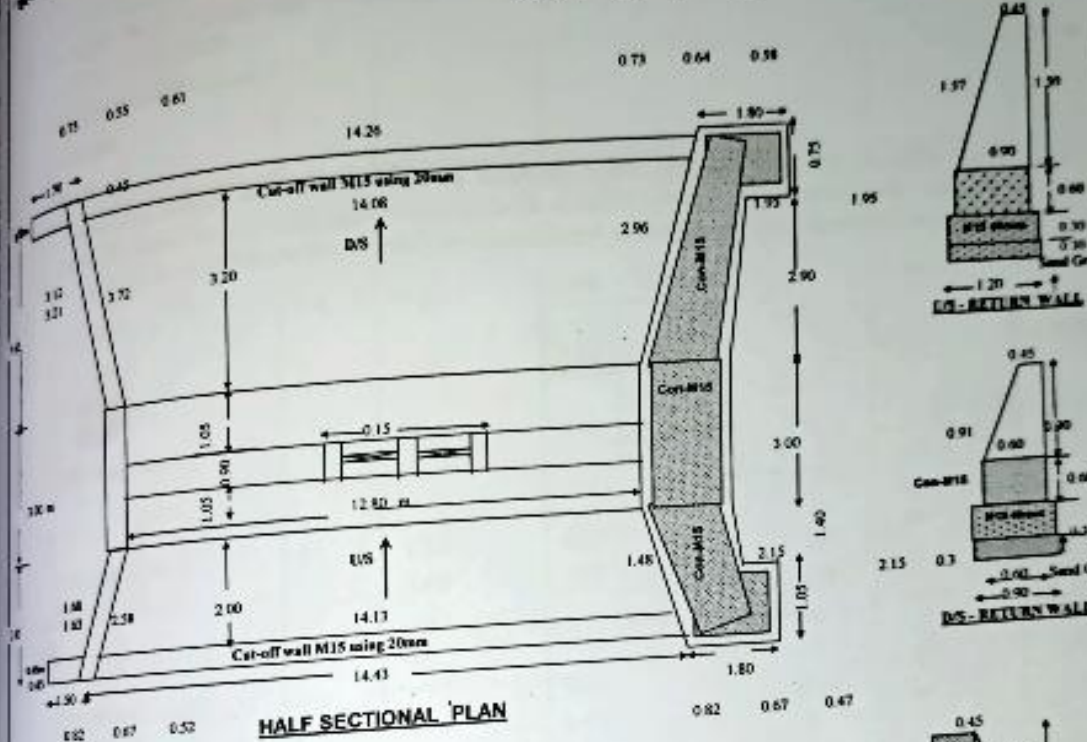
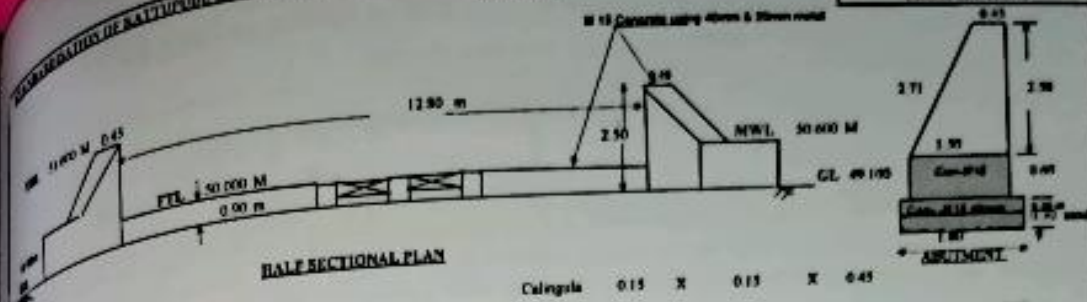


Assistant Engineer, WRD,
E.T.S. Section-III,
Singampunari.

Assistant Executive Engineer, WRD,
E.T.S. Sub-Division,
Singampunari.

Executive Engineer, WRD,
E.T.S. Division,
Kankesan.

STANDARDISATION OF KATTUPUDU EX-ZAMIN TANK IN ARANYAMAI SIRUVAYAL VILLAGE OF KALLAL BLOCK IN KARAIKUDI TALUK OF SIVAGANGAI DISTRICT



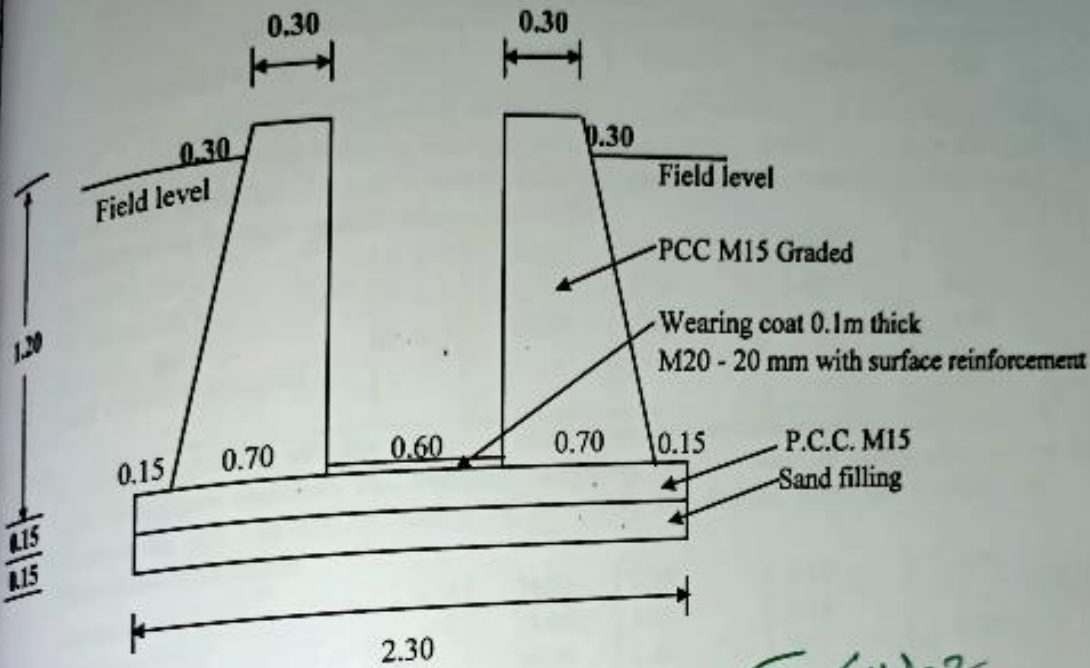
HYDRAULIC PARTICULARS	
Discharge	10.173 Cumecs
Weir length	12.80 m
Body wall height	0.90 m
Head over crest	0.60 m
Ground Level	49.100 m
Crest Level	50.000 m

STANDARDISATION OF KATTUPUDU EX-ZAMIN TANK IN ARANYAMAI SIRUVAYAL VILLAGE OF KALLAL BLOCK IN KARAIKUDI TALUK OF SIVAGANGAI DISTRICT

Executive Engineer, WRD, E.T.S. Division, Karaikudi

DETAILS OF FIELD CHANNEL LINING

22

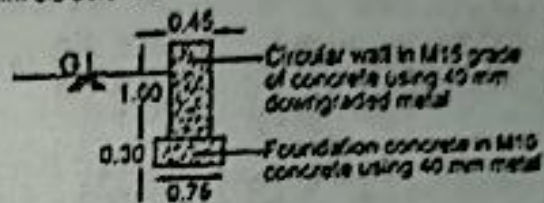
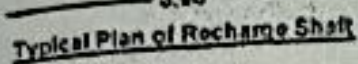


[Signature]
27/6/22
Assistant Engineer, WRD,
E.T.S. Section-III,
Singampunari.

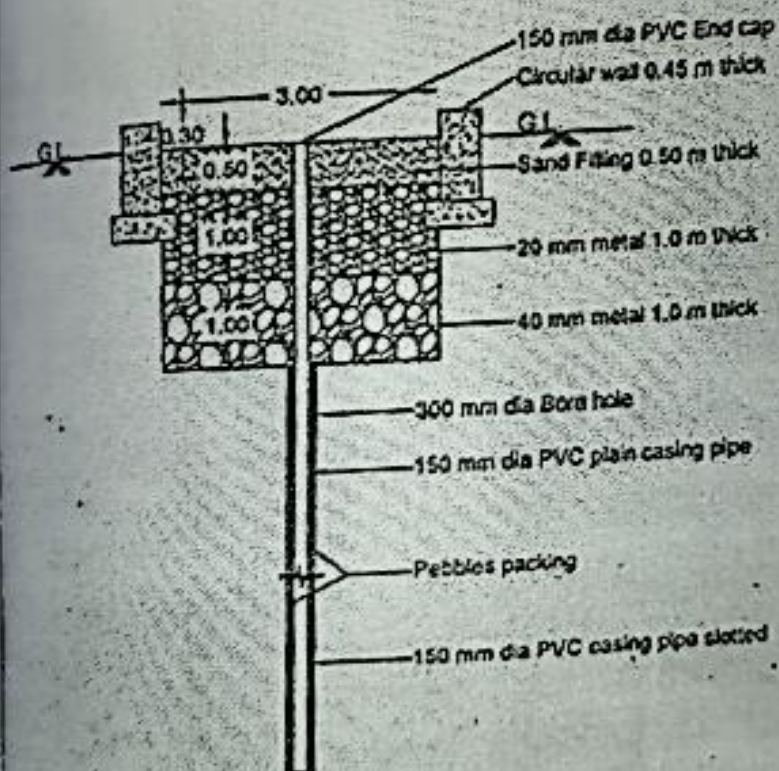
[Signature] 27/6/22
Assistant Executive Engineer, WRD,
E.T.S. Sub-Division,
Singampunari.

[Signature] 27/6/22
Executive Engineer, WRD
E.T.S. Division,
Karaikudi

344



Details of Circular Vign



Typical Cross Section of Recharge Shaft

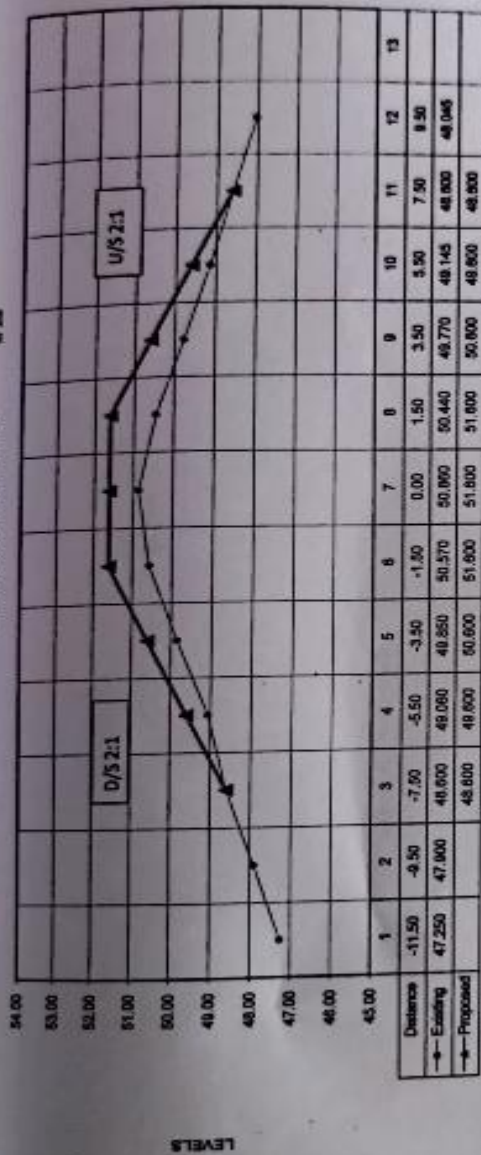
Assistant Engineer, WRD
ETS Section III
Singampunari.

Assistant Executive Engineer, WRD
ETS Sub Division
Singampunari.

Executive Engineer WRD
ETS Division
Karalkudi

STANDARDISATION OF KATTUPUDU EX-ZAMIN TANK IN ARANMANAISIRUYAYAL VILLAGE OF KALLAL BLOCK IN
KARAIKUDI TALUK OF SIVAGANGAL DISTRICT

Bund Cross section at Ls 0 m



FTL- 50.000 m

MWL- 50.600 m

TSL- 51.600 m

Top width- 3.00 m

Front Slope- 2:1 m

Rear Slope- 2:1 m

NW: Mudikondam Tank in Kumarapatti village of Sivagangai taluk in Sivagangai District.

Channel Cross section with Area calculation at LS 650M

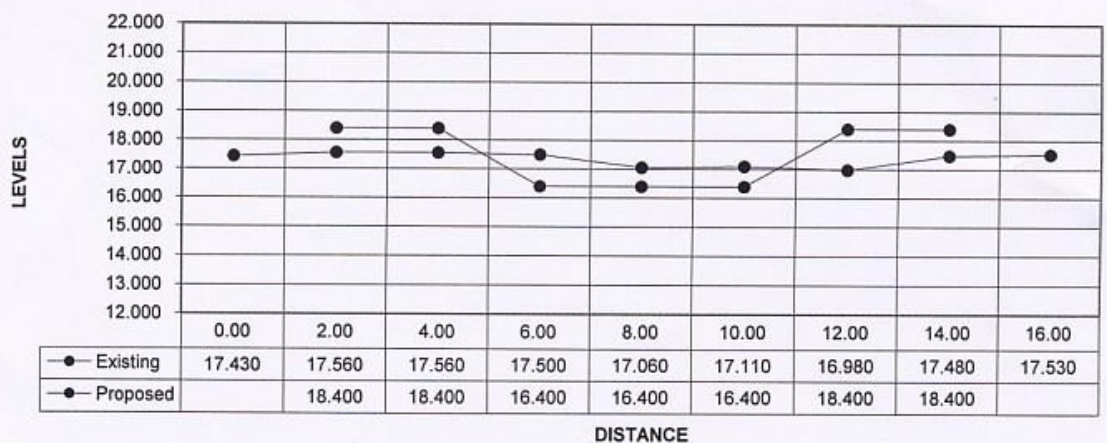
Length= 1500 Slope= 1 in 1000
 Bed Level= 16.400 Bed Width= 4.00 Start of B L= 6.00

Left Intersection		Right Intersection	
X	Y	X	Y
4.866	17.534	10.667	17.067

Graph plotting			Area calculation						
DISTANCE	EXISTING	PROPOSED	DISTANCE	EXISTING	PROPOSED	LEVEL DIFF.	MEAN DIFF	DIST.	AREA
0.00	17.430								
2.00	17.560	18.400							
4.00	17.560	18.400	4.866	17.534	17.534	0.000	0.000	4.866	0.00
6.00	17.500	16.400	6.000	17.500	16.400	1.100	0.550	1.134	0.62
8.00	17.060	16.400	8.000	17.060	16.400	0.660	0.880	2.000	1.76
10.00	17.110	16.400	10.000	17.110	16.400	0.710	0.685	2.000	1.37
12.00	16.980	18.400	10.667	17.067	17.067	0.000	0.355	0.667	0.24
14.00	17.480	18.400							
16.00	17.530								
							Total Area =		3.99

M³

CS AT LS 650M



Osunig
 10/1/2020
 AEE/syg

S. V. S. S. S.
 10/1/2020
 AEE/syg

0.00

The diagram illustrates the cross-section of a retaining wall with the following dimensions and materials:

- Height:** 1.50 m (indicated on the left side).
- Top Width:** 0.30 m (indicated for both the left and right sections).
- Field Level:** Indicated by horizontal lines at the top of the wall sections.
- Left Section Slope:** 1.566 (indicated on the left side).
- Right Section Slope:** 0.30 (indicated on the right side).
- Base Dimensions:**
 - Left section base width: 0.15 m.
 - Right section base width: 0.15 m.
 - Central section base width: 0.60 m.
 - Left section base width: 0.75 m.
 - Right section base width: 0.75 m.
- Materials:**
 - PCC M15 using Graded jelly (indicated for the top section).
 - P.C.C. M 10 using 40mm metal (indicated for the base section).
 - Sand filling (indicated for the base section).
- Overall Width:** 2.40 m (indicated at the bottom).

Assistant Executive Engineer, PWD/WRO
Saruganiyar Basin Sub Division
Sivagangai

SCHEDULE "C"

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

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

Sl. No. 1	Name of technical staff Proposed to be employed 2	Qualification 3	Experience 4

Note (i) in case the contractor is himself professionally qualified the above specification should be suitably altered and in cases in which the contractor selected has not given an undertaking to employ qualified man it should be scored out.

Note (ii) Additional specifications if any, which have to be entered in schedule C Should be entered below item (I) above and numbered continuously.

Special conditions

(i.e, in addition to General Conditions to Contract appended with TNBP)

1.Sales Tax:

a) All rates quoted in the tender shall be inclusive of sales tax payable under General Sales Tax Act, as amended from time to time (including amended Act of 28/84) and the contractor is responsible to file the sales tax return and pay the amount of tax as demanded by the Commercial Tax Department. No request for payment of sales tax separately in addition to tendered rates due to plea of sub sequent levy or increase in tax will be entertained vide also clause 38(2) of General Conditions to Contract,

b) The contractors should indicate their registration number TamilNadu General Sales Tax Act in the tender form, and produce sales tax clearance certificate issued by the Commercial Taxes Department of TamilNadu State before final settlement of the bills,(Chief Engineer (GL) vide No.C.T.O (A)/168056/84/ dt 10.4.94.

2) Claims of Contractors on account of losses due to unprecedented floods and other acts of God.

The Work in PWD (Building and irrigation) executed by the contractor under the contract shall be maintained at the contractor's risk until the work is takeover by the Executive Engineer. The contractors shall accordingly arrange his own insurance against fire, flood, volcanic eruption, earth quake other convulsions of nature and all other natural calamities, risk 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.

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

3) Standard Specifications:

For detailed description of various items of work to be executed in addition to the brief description given in the schedule and for the rights and obligations of the contractors etc., the attention of the contractors is invited to TamilNadu Building Practice which should be followed in all respects both in letter and spirit. The materials used the Work man ship, the mode of execution of the work etc., should confirm to relevant specification of TNBP or Indian Standard Specification as may be specified.

4.Safety Code

The safety measures and all amenities for the labours shall be made by the contractor at his cost as indicated on the safety code vide appendix to General Conditions to Contract and clause, 34, 35 and 42-1 to 42-6 of General Conditions to Contract.

5.Recovery of dues under Revenue Recovery Act.

Whenever any amount has to be paid by the contractor in view of determinations of the contractor by virtue of clause 57(4) or any amount that may be due or become due from the contractor 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 provision of the Revenue Recovery Act.

6.Department Supply of the Materials

Deleted

7.Reinforced Cement Contract Works:

7.1 Centering

Payment 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.

7.2 Concrete for R.C.C Works:

All cement concrete for R.C.C. Works shall be machine mixed and vibrated.

8. Employment of technical assistant:

a) For more than one work:

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

b) Movement register:

A movement register may be maintained for technical assistant employed by the contractor, if the contractor has agreed to such employment or for the technically qualified contractor. The technical assistant or technically qualified contractor may note their arrival and departure timings everyday in that register along with initials. Such register should be produced during inspection.

c) Other engineering qualification:

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

9. Ban on Employment of child labour:

The contractor shall not employ the labour below the age of 12 years and shall note that he must offer employment to Ex-Servicemen, Ex-toddy tappers, unemployed agricultural labourers, and Burma, Malaya and Ceylon repatriates as far as possible.

10. Hold fasts:

Iron hold fasts shall be fixed in the walls at the time of construction with cement concrete 1:3:6 using 20 mm gauge broken granite stone jelly for proper anchorage and binding. No separate rate for such pockets of concrete filling at hold fasts points will be allowed, and this will be measured as masonry along with adjacent masonry.

11. Wood:

Teak wood shall be best Indian teak Wood only and shall be subject to inspection and approved by the Executive Engineer before use on the work. Country-wood where specified shall be Karumarudhu, Pillaimarudhu, Kongu, Venteak for scantling and Manja Kadambu, Iyini for planks, as may be specified and approved by the Executive Engineer.

12. Beams:

In the case of Tee Beams all Ell Beams, the quantity given in the schedule is the quantity of rib portion only.

13. Plastering Corners:

All corners shall be finished sharp using C.M. 1:3 not exceeding 7.50 cm width on each side of the corner. So also the edges of beams, edges of doors and window openings, soffits, shall be finished sharp using rich mortar and finished truly vertical or horizontal as the case may be. The unit rate quoted by the contractor for plastering shall include the cost of finishing as above and no separate claim for extra rate will be entertained. However, the cement utilized for the work will be taken into consideration in the adequacy statements for issue of department cement to the contractor.

14. Works in different floors:

If separate rate is not called for, for execution of similar items of work in different floors, then, the single rate quoted will alone be entertained uniformly for execution of such items of works in different floors. No claim for extra rate will be entertained under any circumstances.

15. Employment of qualified Plumber:

The contractor should employ qualified plumber in the execution of sanitary and water supply works.

16. Earth work for Irrigation Work:

16.1 Each and every borrow pit will be individually marked either by the section officers or by the Sub Division Officers and in urgent case, by the work inspectors 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 officers.

16.2 The contractor should not put borrow pits for removal of earth in a haphazard fashion and they should only 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 unauthorized pits are put in the contractor will have to fill up the pits at his own cost.

16.3 A deduction of 20% and 10% will be made in the quantity of earth work measured for thardus and muttus respectively and the amount on account of this deduction will be paid after satisfactory removal of thardus and muttus. If thardus and muttus are not removed within a month from the date of check measurement by the Sub Divisional Officer or the Executive Engineer or within the period fixed at the discretion of the Executive Engineer, the 20% and 10% deduction be final and will not be revoked.

16.4 The Contractors shall arrange for sectioning of the bank immediately after the work on reach is completed. The final sectioning must be completed within 15 days, after the completion of the work in the entire reach.

16.5 While comparing the quantities for measurement in borrow area and formed, where special consolidation is done using mechanical roller or hard or power roller an increase of 15% (Fifteen percent) of the finished quantity may be added and the final quantity arrived at as indicated below.

1) The quantity as per borrow pit measurement.

2) The quantity of earth work as per levels (i.e) after consolidation with 15% allowance for consolidation.

The lesser of the above two shall be taken as final quantity of earth work done for the purpose payment.

17) Forming of bunds and Embankments:

17.1. Payment for earth work for forming bund and embankment will be made excluding the quantity of pebbles, boulders and other such materials which shall not be used along with the earth work the formation of bund.

17.2. Department machinery if possible will be supplied to the Contractor and the hire charge will be recovered at the rates which will be fixed then and there.

18. Hard rock requiring blasting:

18.1 In the case of earthwork excavation in hard rock requiring blasting, the tender should observe the following conditions:

a) The blasted rock shall 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 pre measured quantity and only the lesser of the two shall be paid.

b) Where the rock other than hard rock and are mixed up on ground the two kinds of rocks shall be stacked separately for measurement. The net measurement of the two kind of rock shall be arrived by applying 40 % deductions for void s.

The total of the net measurement of two kinds of rock shall be compared with the premeasured quantity and only the lesser of the two shall be paid for. If the total of net measurements of the two kinds of rock exceeds (or) falls short of the measurement of mixture, the volume of mixture proposed to be paid shall be apportioned in the proportion of the net actual measurement 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 shall be increased loose (or) improper stacks.
- li) 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 building and Civil Engineering work, Part. I Earth Work' any be referred as and when necessary.

19) Deduction of In Come Tax at Source from payments to contractors(SEC 194C).

19.1 Consideration in excess of Rs.20, 000 /- Tax deduction:

19.2 No tax is to be deducted at source in respect of a Contract the consideration for which does not exceed Rs.20, 000. Where payments are made under several contracts during a financial year and the consideration for any individual contract does not exceed Rs.20,000 ,no deduction is required to be made under this section though the total payment exceed Rs.20,000/-

19.3 Rate of tax deduction- during the financial year in respect of payments to Contractors/Sub-Contractors

Payment to Individuals	1%
Payment to Contractors, Proprietorships and Partnership Firms	2%

Special Condition for GST

The Contractor should furnish the “copy of Goods and Services Tax (GST) Registration Number.

GST RATES AT 12% FOR WORKS CONTRACT

7. Government of India has notified vide Notification No.20/ 2017- Central Tax (Rate), Dated: 22nd August 2017 and NotificationNo.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.

And the GST amount will be calculated at 12% from the sum of total tendered value quoted by the tenderer for construction cost/ electrical works cost (excluding GST) specified in the Bill of Quantities, subject to GST rate applicable from time to time as recommended by the GST Council.

INPUT TAX CREDIT (ITC)

19. (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 register.

(c) As per Revised Schedule of Rates for 2017- 2018 dated: 21.10.2017, under General Not 8 (ix), the contractor is eligible to get refund of excess tax paid or liable to pay tax for this Contract Work.

TOTAL PRICE

20. The total price will be the cumulative of value quoted for construction/ providing (Total Basic Price + GST).

44. PAYMENT

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”,

AMENDMENT TO SPECIAL CONDITION

Sl No	Para	For	Read
1)	1(a)	<u>SALES TAX</u>	
		<p>All rates quoted in the tender shall be inclusive of sales tax payable under General Sales Tax Act as amended from time to time (including amended Act of 26/84) and the Contractor is responsible to file the sales tax return and pay the amount of tax as demanded by the commercial tax Department. No requested for payment of sales tax separately in addition to tendered rates due to any plea of subsequent levy or increase in tax will be entertained vide also clause 38(2) of General conditions of Contract.</p>	<p>All the rates quoted in the tender shall be inclusive of sale tax payable under General Sales Tax Act as amended from time to time (including amended Act of 28/84) and the contractor is responsible to file the sales tax return and an amount of 2 % of the total amount payable to the contractor against this contract will be deducted from the contractor's bills at the time of payment towards TamilNadu General Sales Tax as per TNGST Act 15/'99. No request for payment of sales tax separately in addition to tendered value due to any plea of sub sequent levy or increase in tax will be entertained vide also clause 38(2) of General conditions to contract.</p>

ADDITIONAL SPECIAL CONDITION

1) The contractor should not enter any private land for removal of earth there from, without the prior written consent of the land owner. If he does so unauthorized, the contractor will be held fully responsible for any consequences arise there from.

2) If night work is required to fulfil the agreed rates of progress all arrangements shall be made by the contractor including lightning without any claim for extra rate.

3) Payment will be made on detailed measurements. Any of the item in the schedule may be omitted or altered radically no variation in the rate shall become payable to the contractor on account of such omission or variation in quantities.

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

5) The Executive Engineer will be entitled to carry out any portion of the work at any time either departmentally or through any other agency in the interest of Government work without assigning any reasons to the contractor who is actually doing the work. The contractor is not on titled for any compensation on account of the same. The contract will be only subject to this condition.

6) Tenderers with in tampered seals will not be accepted

7) Sufficient labourers as may be required by the Executive Engineer shall be employed on the work so as to increase the progress of work.

8) Mango plank shall not be used for centering of R.C.C works under any circumstances, Centering and forms shall be provided to the extend and area ordered by the Executive Engineer during the execution. If wooden centering is used the junction of two planks shall be provided with G.I sheets of approved the thickness and width.

9)The RTS / mild steel sections such as rods etc., Used on the work shall be measured based on the standard section weights and dimensions per unit, length as per the latest revision of the I.S.I. had book for structural Engineers.

10) Casurina posts shall be used for strutting for plain surfaces of all R.C.C works.

11) No additional work shall be executed without prior approval of the competent authority.

12) The Contractor shall prepare a pert chart for works costing more than Rs.5.00Lakhs and produce the same before starting the work.

13) Earth work and masonry work should be started simultaneously if so required by the Department Officers.

14) The rates specified in the schedule for the different items of work are for the finished work only.

15) The revetment should be built up to a uniform depth as directed by the Department Officers. Each stone should run to the full depth of the revetment.

16) Departmental machineries if possible will be supplied to the contractor and the hire charges will be recovered at the rates which will be fixed then and there for the machines from the contractor.

17)CEMENT AND STEEL

The contractor shall make his own arrangements for the procurement of cement and steel in open market to required specification and required quantity for the works.

The contractor shall make his own arrangements to test the steel and Cement as to whether they conform to I.S. Specification and produce test certificate to the P.W.D field

Engineers. The test may be conducted at his own cost in the Government Laboratory (or) Laboratory approved by the Government.

The quantity of materials supplied by the contractor to the works will be confirmed by periodical test by the Department in the Government Laboratory (or) Laboratory approved by the Government.

18) CEMENT:

A) Generally Cement shall conform to clause 4 of I.S 456-1978 for the purpose of specification. Cement used shall be any of the following with the prior approval of the Department Engineer.

The provisions of this paragraph apply to Cement for use in cost in place concrete required under these specifications. Portland cement required for items such as concrete pipes, precast concrete structural members and other precast concrete products for grout and mortar and for other items is provided for in the applicable paragraph of these specifications covering the items for which such Portland Cement is required.

b) Acceptance of Cement Tested cement will be supplied by the contractor according to Clauses 10.1 of I.S. 269-1976.

19) REINFORCEMENT

a) General: The contractor shall furnish, cut bend and place steel reinforcement including rods or mild steel and for steel as indicated in drawings as directed by the department Engineer.

All steel used for reinforcement shall be clean free from oil, grease, paints, dust, mortar, scales, kinks, rust or any rolling defects or directions of the Department Engineer,

Mild steel high tensile steel bars and hard drawn steel wire conforming to I.S. 432-1960 as revised from time to time.

i) Structural steel sections conforming to IS 226-1955 as revised from time to time.

ii) Cold twisted steel bars complying with the required of I.S 1786-1966 as amended from time to time.

Binding wire used shall be of soft annealed steel of 16 S.W.C. and shall have an ultimate strength of not less than 5600 kg .per square cm. and a yield point of not less than 3850 kg. Per square cm.

20) 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.

**Additional special conditions vide Govt Lr. No 2163/Y2/95-4/Dt 19.9.96.(PWD) and
CE(GL)Memo No CTO/A/470/Dt 8.10.96**

AMENDMENT OF GENERAL CONDITIONS OF CONTRACT

In the said preliminary specification after clauses 56 the following clauses shall be inserted namely.

56-4 In cases where the Government under the terms of the contract with the contractor are liable to supply any materials article of things to the contractor for the performance by him of his part of the contract. The Executive Engineers, may at his absolute discretion extend the time within which such materials, articles or things may be supplied by the Government and the Government may supply to the contractor without any liability on their part of compensate the contractor by reasons of the extension of time for the supply of the materials, articles of 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 contract and the contractor for the performance by him or his part of the contract and the Government for any reasons are unable to supply such materials, articles or things either within the time specified in the contract or within the time extended under clauses 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 buy him up to the date of such determination and left unused on the work-spot (Which shall be taken over by the Executive Engineer either at the contract rates or at values deduced from the through rates included in the contract) When the contract is determined at the discretion of the Executive Engineers, 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 rates means the rate for the finished items of works or the all in rates that is to say the rates for finished items of works inclusive of the cost of materials and labour.

56-6 if at any time after the acceptance of the tender the Government shall for any reason whatsoever not required the whole or any part of the works to be carried out, the Executive Engineers shall give notice in writing of the fact to the contractor, who shall have no claim to any compensation or other payments whatsoever on account of any profit or advantage he might have derived from the executive of the work in full but which he did not derive in consequence of the termination of the works, he shall be paid at contract rates, for the work executed by him including any additional works such as clearing of site etc., that may be rendered necessary by such termination. He shall also be allowed a reasonable payment as decided by the authority next higher in rank to the authority which accepted the tender, for any expense incurred by him on account of labour and materials, articles or things collected, but which could not 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.

Superintending Engineer, WRD
Lower Vaigai Basin Circle, Sivagangai.

GENERAL CONDITIONS (PART – 1)

1. The work shall be carried out in strict accordance with Tamilnadu Building Practice and its volumes.
2. The contractor shall make his own arrangements for the procurement of cement, steel, binding wire and all other construction materials of the required specifications for the work. The rates for several items of work involving the cement and steel will be inclusive of the cost of cement steel, storage, centage, conveyance charges, taxes, sub charges and all other incidental charges.

Cement shall confirm to clause No. 4 of I.S. 456 – 1978 for the purpose of Specification.

For specification of Ordinary rapid hardening and low heat Portland cement I.S. 269 – 1989 and for Portland pozzalana cement I.S. 1489 – 1991 shall

apply.

3. In case where the contractor is required to procure Portland cement for the work, shall always purchase Portland cement as fresh as possible after manufacture, and he shall on demand by the Executive Engineer, furnish a laboratory certificate of a character material with the approval of the Executive Engineer. This should be demanded in every case where there is reason to believe that the cement has been long stored and may have thereby deteriorated in quality in the opinion of the Executive Engineer or his representative present on the site of work.

The quality of cement and steel procured shall be in confirming with I.S.I Standards. The quality test shall be conducted by the contractors at their own cost, before use on work in the technical education centre laboratories (or) in the Government approved testing laboratories (or) in the Laboratories of PWD if available at various stages. PWD has liberty to confirm the quality of the materials supplied by the contractor at various levels and stages at their own laboratory, at the cost of contractors. Random check by the officer incharge will be made for the each consignment and samples sent to Government authorised institution for testing at the cost of contractor.

4. The Executive Engineer shall reject any cement which is proved to be not according to standards.

Contractor

5. For storage of cement paragraph 5 of I.S 269 – 1967 shall apply. In case where the contractor required to procure Portland cement for the work, he shall notify the Executive Engineer on the arrival of each consignment of Portland cement on the work, informing him at the same time of the brand, agent from whom obtained and age of the cement. Transportation from the place of supplying to the batching plant, shall be whether by Flight, Rail, Cars, Trucks, conveyance and other means which will protect the cement completely from exposure and moisture. Immediately upon receipt at the job site, bulk cement shall be stored in dry-weather, Light, properly ventilated places until the cement is used on works. Cement which has become or perished by moisture or other causes shall on no account be used on the work.
6. All storage facilities shall be subject to approval of Engineer in charge and shall be constructed at easy access for inspection and identification by the departmental officers.
 - a. Avoid storage for long periods, do not store at all, if possible, during the rainy season.
 - b. Prevent circulation of air through the cement by close packing and cover with a tarpaulin.
 - c. For other precautions in this regard, I.S. 4082 – 1987 shall apply.

- d. Cement should be stored in a building or shed which is a leak proof and as moisture proof, as possible.
- e. Cement which has fully (or) partially set, shall not be used.

f. Temporary store at site

Very often bags of cement have to be stored in the work site out in the open, for use on work for one or more days. In such cases the bags shall be laid on a dry platform made of wooden planks resting on brick masonry, concrete or dry sand or aggregate platform above 150mm above the ground.

The number of bags shall be kept to a minimum, preferable just sufficient for the day's consumption.

Care shall be taken to see that every point in the pile is well covered by tarpaulin or polythene sheet and protected against the moisture in air. The Tarpaulin, must overlap each other properly.

g. Non payment to wasted concrete

No payment will be made for wasted concrete in replacement of damaged or defective concrete or extra concrete required as a result of over excavation and excess concrete placed by the contractor intentionally, performed to facilitate the contractor's operations, shall be borne by the contractor himself. No extra payment will be made to contractor for such additional quantity of cement.

Contractor

h. Use of pozzalona cement on works

Ordinary Portland cement conforming to I.S. 269- 1989 shall be used for masonry work. Portland Pozzalona cement conforming to I.S. 1489 – 1991 may also be used for masonry work in the event of non – availability of ordinary Portland cement with the prior approval of Engineer – incharge.

- 7. Departmental machinery to the extent available will be supplied to the contractor and the hire charges will be recovered for the machinery from the contractor's bill at the rates that will be specified by the department, if hired.
- 8. The contractors who are themselves not professionally qualified shall undertake to employ qualified Technical men at their cost to look after the work. The contractors would state in clear terms to employ Technical men required by 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 Technical qualified men is always at the site of work during working hours professionally checking all the items of works and paying extra attention to such works as may demand special attention (e.g). reinforced cement concrete works, etc.

Note : In case the contractor who is professionally qualified is not in a position to remain always at the site work during working hours personally checking all items of work and paying extra attention to such works as may demand special

attention (e.g. Reinforced Cement Concrete works etc.) he should employ technically qualified men as prescribed for the works above.

The employment of Technical Assistant should be based on the value of contract. Engineers with Mechanical Engineering Qualification and reputed from Civil Engineering Department are also suitable to supervise the Civil Engineering Works because of their experience in Civil Engineering field.

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 their departure timings every day along with their initials. Such register should be produced during the inspection of the inspecting officer.

9. The contractor shall not employ the labour below the age of 18 years.
10. He should offer employment to Ex-Servicemen, Ex- toddy tappers and unemployed agricultural labours as far as possible.

Contractor

11. Sufficient laboureres as may be required by the Executive Engineer shall be employed on the work so as to gear up the progress of the work and the contractor is bound to employ such extra labourers with out claiming extra.
12. The contractor shall not claim for any loss due to unforeseen circumstances including suspension of work due to cause.
13. Accident to people employed by the contractor resulting compensation to be paid as per the workmen 'Compensation Act' shall be on the contractor's account.
14. The contractor should make his own arrangements for the conveyance of materials to the work site from sources specified.
15. The quarry specified is the nearest one to the work spot, where one can use material as per specification required are now available, But, if the quarry containing similar of specification, happened to be at the nearer distance to the work spot, than that to the quarry in the schedule, the Executive Engineer shall have right to ask the contractor to quarry the required materials only from nearest quarry and to allow rates for the some based on the lesser lead during the time of execution of the work.
16. Payment will be made on detailed measurement. Any of the items in the schedule may be omitted or altered technically and no variation in the rate shall become payable to the contractor on account of the omission (or) variation in quantities.
17. Before payment of final bills the contractor shall produce certificate from the Income Tax authority that all income – tax payable by him up to date has been paid and certificate from the sale tax authority that all the Sales Tax payable by him up to date has been paid.

18. The tenderer shall fill in Column 7 of the schedule – A also.
19. The rates should be inclusive of all taxes payable to the Government by the contractor.
20. The rates will be for the finished items of work and no extra will be paid for seignorage charges
21. Income Tax will be deducted as per rules in force for the work including cost of all materials such as cement, steel, etc., from the contractor's bill at the time of payment.
22. Tender with tampered seal will not be accepted.

Contractor

23. If rate quoted tender system adopted. Tenders in which the rates are not written in words will summarily be rejected. In case of any discrepancy while expressing the rates in words, the rate whichever is least will only to be taken into account.
24. Tenders containing overwriting or corrections which are not attested by the tenderer will be liable for rejection.
25. Tenders received without full requisite E.M.D. will be summarily rejected.
26. The site should be cleared by the contractor after completing the work, as required by the departmental Engineers, at his cost without claiming extra.
27. The work shall be carried out without any hindrance or damage to the existing cross masonry works such as bridges, super passages, etc.
28. A deduction of 20% and 10% will be made in the quantity of earth work measured for thandoos and muttoos respectively and refund of amount on account of this deduction will be made only when the satisfactory removal of the thandoos and muttoos. If the thandoos and muttoos are not removed within 30 days from the date of check measurement or within the period as fixed at the discretion of the Executive Engineer, the 20% and 10% deduction will not be revoked.
29. The recovery towards hire charges of machineries will be made at the rates specified and for the time actually utilised by the contractor or for the time required as per the date considering the out turn which ever is higher.
30. The sectioning of the bank should be done immediately after the work in the reach is completed. The final sectioning must be completed within 15 days after the completion of the work in the entire reach.

31. The earth required for the work shall be normally selected by the Departmental Engineers and the contractor is to use the earth so selected for forming bank, etc. as directed by the Departmental Engineers.
32. Payment for sand will be made for quantity of sand stacked after making necessary deduction for bulkage from the stacked quantity.

$$\text{NET QUANTITY} = \frac{\text{Gross stacked quantity} \times 100}{100 + \text{percentage of bulkage}}$$

Contractor

The percentage of bulkage will be determined from the test conducted according to the procedure indicated in the Chief Engineer's circular Memo No.535-G/63 FP dated 9.9.93 on the undisturbed sample taken from the stacks. The rates to be quoted shall therefore be for one cubic metre of final quantity of sand to be stacked after necessary deduction of bulkage.

33. Measurement for rock blasting and removal will be made on level basis and stack measurement also will be taken in to comparison allowing 40% voids and the lesser one will be considered for payment. No over bulkage will be allowed in blasting.
34. The contractor should prepare a bar chart for the works costing more than Rs. 500 Lakhs and produce the same before starting the work to the Executive Engineer concerned for his approval.
35. For the purpose of payment for the earth work for the formation of the bund where special consolidations done by mechanical roller or hand or power roller, the quantity as per the borrow pit measurement or the quantity of Earth work as per levels after consolidation with 15% allowances over the finished earth work, which ever is less will be taken as final quantity for making payment.
36. In case of any dispute or difference between the parties to the contract either during the progress (or) after the completion of the works or after determination, abandonment or breach of the contract as to any other matter or thing arising there under, except as to matters left to the self discretion of the Executive Engineer of the clause 18,20, 25-3 , 27(1), 34, 35 and 37 of the General conditions of contract as to the contractor may claim to be entitled them party shall forthwith give to the other notice or such dispute or difference shall be and is hereby referred to the arbitration of the Superintending Engineer, of the nominated circle, mentioned in the article of agreement herein after called 'the arbitrator'. In cases where the value of claim is more than Rs.50,000/- the parties will seek as specified, in tender notice.
37. The contractor has to maintain the progress of work as per the percentage of work specified in tender.

If the contractor fails to keep the rate of progress as stipulated in the tender, penalty will be imposed on the contractor for his slow progress with reference to clause 57 of Tamil Nadu Building Practice under preliminary specification.

38. Similarly for lighting arrangements to do any right work, to keep up the accepted progress of work, the contractor has to take his own arrangements at his cost. Possible help to get power connections from the Tamil Nadu Electricity Board, etc., so as to complete the work within the accepted contract period will be made by this department. But concreting has to be done in day time. No extra payment will be paid for such works.

Contractor

39. The contractors are requested to inspect the site of work, the quarries for sand and metal and satisfy themselves about the adequacy of the provision made for lead and lift before tendering. The contractor will not be eligible for extra lead and lift even if it is actually involved during the course of the work.
40. An amount of 2% in respect of civil works contract and 4% in respect of other works of the value of work including cost of all materials such as cement, steel, etc., will be deducted from the contractors bill at the time of payment towards sales tax as per Tamilnadu General Sales Tax Act No.15 of 1999 (5th Amendment).
41. In the event of the death or insanity or insolvency or imprisonment of the contractor or where the contractor being a partnership or firm becomes dissolved or being a corporation goes into liquidation, voluntarily or otherwise, the contract may at the option of the, **Superintending Engineer, WRD, Lower Vaigai Basin Circle, Sivagangai** be terminated by notice in writing pasted at the site of the works and advertised in one issue of the local District Gazette and all acceptable works shall forthwith be measured up, and paid for, at the rates provided in the contract schedule where such apply, or otherwise, by the most recent schedule of rate of the Division approved by competent authority to the person or persons entitled to receive and give a discharge for the payment.

Superintending Engineer, WRD,
Lower Vaigai Basin Circle, Sivagangai

Contractor

GENERAL CONDITIONS (PART – II)

1. Period of Completion **7 (Seven)** months from date of Handing over of site
2. The successful tenderer will be required to make a further security Deposit at the direction of the accepting authority. Execution and completion of the work should be within the period specified in the tender notice form the date of commencement of work or handing over the site which ever is earlier.
3. Specification for the various materials and the execution of all works shall be as per Tamilnadu Building Practice.
4. It must be distinctly and specifically understood that work will be executed complying with the specification in metric system found by Tamil Nadu Building Practice Vol. I and II. Payment will be made as per measurement recorded units only.
5. Every tenderer before tendering is expected to inspect the proposed work site. Any claim for extra cost on account of increase in lead of materials will not be accepted.
6. The work shall be proceeded expeditiously from the date on which the site is handed over and completed as early as possible as required by the departmental officers.
7. The contractor must make his own arrangement to form approach roads and ramps any other arrangements required therefore for the fulfillment of contractual obligations at his own cost and maintain the same through out the period of contract. On permission for using existing roads, ramps, etc., if any, by the contractor must bear all charges to maintain for using the road. No extra cost on this account will be entertained by the Department.
8. If night work is required to fulfill the agreed rate of progress all arrangements shall be made by the contractor including lighting the area without any additional claims.
9. The plan and schedule of quantities are subject to alter during execution and payment shall be made as per actual measurement of works done. No claims for any extra cost of works whatsoever shall be entertained for such revision of doing extra.

10. The rates specified in the schedule for the different items of work are for the finished works and no extra will be paid for baling and pumping charges indented on the work.

Contractor

11. The shed for storing the materials should be put up by the contractor at his own cost. The contractor's special attention is invited to relevant clauses of the general conditions of contract of Tamil Nadu Building Practice and also required to provide at his own expenses sheds, latrine, water , lights, urinals, etc.
12. Earth work and masonry work should be carried out simultaneously as required by the departmental officers.
13. In case it is found by the Departmental officers that the contractor has brought any of the required materials from quarry with lesser lead than the specified in the schedule proportionate deduction will be made from the contractor's rate of payment for finished work for the respective item.
14. The contractor will be held responsible for the proper and 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.
15. The contractor rates are inclusive of **GST** payable by the contractor to the Government as amended from time to time. No enhanced rates will be payable to the contractor for any upward revision of GST during the currency of the contract.
16. Contractors should obtain from the authorities concerned an Income Tax clearance certificate for the current year and submit it along with the tenders.
17. The work executed by the contractor under the contract shall be maintained at the contractor's risk until the work is taken over by the Executive Engineer. The Government shall not be liable to pay for any loss or damages occurred by or arising out of fire, flood, Volcanic eruption, earth quake, Tsunami other convulsions of nature and all other natural calamities, risks arising out of act of God during such period and that the option whether to take insurance coverage or not to cover such risks, is left to the contractors.

Contractor

18. Insurance

The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for 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.

Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval 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.

If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

Alterations to the terms of an insurance shall not be made without the approval of the Engineer.

Both parties shall comply with any conditions of the insurance policies.

Insurance requirements are as under:

[13]

		Minimum Cover for Insurance	Maximum deductible for Insurance
(i)	Works and Plant and Materials	Value of plant and Material	Rs.1.25/- per thousand per annum
(ii)	Loss or damage to Equipment	Value of Equipment	Rs.0.50/- per hundred per annum
(iii)	Other Property	Nil	Nil
(iv)	Personal injury or death insurance: a) for other people;	Rs.1,00,000/- per person	Rs.500/- per person per annum
	b) for Contractor's Employees	Rs.1,00,000/- per person	Rs.60/- per person per annum

Contractor

18. If there are any dues from the contractor to the Government for this work, if it is not recoverable from the contractor under this contract or other contract, the

dues will be recovered from the contractor by evoking the provision of the Tamilnadu Revenue Recovery Act 1964 (Tamil Nadu Act V of 1964).

(i) Recovery of dues under Revenue Recovery Act:-

Whenever any amount has to be paid by the contractor by virtue and clause 57.4 General Condition to the Contract or any amount that may be due or may become due from the contractor made these presents and the contractor is not responding to the demands for payments against a said amount, then, the Government shall be entitled to recover the said amount under the provisions of the Tamil Nadu Revenue Recovery Act 1964 (Tamil Nadu Act V of 1964) G.O. Ms. No : 1318 P.W. dt.22.5.1986 amended in Government letter No. 135130/Y2/88-3 dt.30.3.1990.

19. The Executive Engineers will be at liberty to withdraw and carryout any portion of the work any time either Departmentally or through any other agency, in the interest of Government.
20. In the event of the work being transferred to any other Circle / Division / Sub Division to Superintending Engineer / Executive Engineer / Assistant Executive Engineer who is incharge of Circle / Division / Sub Division having jurisdiction over the work shall be competent to exercise all the work and privileges reserved in favour of the Government.

21. With Held Amount :

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

Retention of 2 ½ % for one year :

A sum equivalent to 2 ½ % of the value of work done will be retained with the Government for a period of one year reckoned from the date of completion of the work done by the contractor. The amount so retained with the Government will be refunded only on expiry of one year period referred to above and on execution of indemnity bond by the contractor for a further period of four years.

The contractor shall be liable to set right all defects arising out of his faulty execution (or) sub- standard work noticed during the above mentioned one year period at his cost.

Contractor

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 Service Tax (GST) amount for all the running account bill) of each bill as retention money out of the 5% retention amount 2 ½% (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 2 ½ % 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.

The retention money of 2 ½ % 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.

Contractor

Superintending Engineer, WRD,
Lower Vaigai Basin Circle, Sivagangai

CONDITION OF THE EARTH WORK

1. The entire earthwork will be carried out in accordance with the relevant clauses of the Tamilnadu Building Practice and National building code and confirming to the special specification set forth here under.

2. The site should be cleared before the excavation of foundation and starting of work.

3. The rates specified in the schedule for the different items of works are for the finished work and no extra will be paid for incidental works like shoring, strutting, planking, sheeting, etc, found necessary during excavation work.

4. The excavation and depositing of excavated soils shall be carried out as per the direction of departmental officers.

5. Each and every borrow pit will be individually marked either by the section officer or by one Sub divisional officer and in urgent cases by the Technical Assistants incharge of the works 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 officers.

6. No borrow pits should be less than 0.5m in depth and a gap of not less than 0.5m should be left between any two consecutive pits. The length, width and depth of pits shall be decided to suit the requirement of earth work. When they were excavated for more than 3m in width, diagonal thandoos should be provided. In case the depth of the pit has kept lower than 0.5m as mentioned above, the prior approval of the Executive Engineer must be obtained.

7. The contractor should not enter any private lands for removal of earth without prior written consent of the land owner and as per directions of the departmental officers. If he does so, for the unauthorised entry by the contractor, he will be fully held responsible for any consequences.

8. The contractor shall confine to the areas allotted to him in the borrow areas. Any borrow pit in a area not allotted to and in reach not specifically allotted to him and in reaches allotted to other contractor, will not be measured and the contractor shall have no claim to such earth work.

9. In case of any dispute on classification of soils in earth work the decision of the Executive Engineer shall be final, binding on the contractor.

10. The contractor's responsibility is for excavating earth, loading into his lorries, transporting it and unloading in places shown by the departmental officers.

11. Whenever the earth is to be conveyed in contractor's lorries, the earth loaded into the lorries shall be transported and unloaded at the places shown by the departmental officers. Any earth deliberately unloaded at any other place other than shown by the departmental officers will be measured separately and deducted from the contractors bill. The cost of conveying this earth will not be billed for.

Contractor

SPECIAL CONDITIONS FOR STEEL

A. MATERIALS :

- 1) The contractor shall make his own arrangements to procure all materials like cement, steel, binding wire and other required for the work, at his own cost.
- 2) In case where the contractor is required to procure steel for the work, he shall always purchase and use on works, high yield strength deformed (H.Y.S.D) Steel Bars of Grade Fe 415 confirming to I.S. 1786-1985 specification for high yield strength deformed steel bars and mixes for cement concrete (unless shown otherwise on the drawings the reinforced to be used).
- 3) The contractor shall always purchase the steel rods as fresh as possible after manufacture and he shall on demand by the Executive Engineer, furnish a laboratory test certificate of a character material, with the approval of the

consignment of steel rods and for each category of rods (each dia) Samples of rods will be selected for testing by department officer. Each consignment and cost of testing at the Government authorised institution will be borne by the contractor.

The quality of steel rods produced shall be with the I.S.I. standard. The quality tests shall be conducted by the contractors at their own cost in the Government testing laboratories or in the laboratories of P.W.D. if available at various stages. Public Works Department has liberty to confirm the quality of the materials supplied by the contractor at various levels and stages at their own laboratory at the cost of contractor.

- 4) The Executive Engineer shall reject any cement and steel which is proved to be not according to standards.

B. PLACING :

1. The arrangement of steels rods for reinforcement for R.C.C. work shall be in accordance with departmental drawing supplied. For anchoring the concrete to the land rock, provision of anchor rods is made in the drawing and the contractor shall place these anchor rods to the spacing and depth shown in the drawing.
2. Reinforcement shall be bent and fixed in accordance with the procedure specified in I.S.2502-1963 (code of practice for bending and fixing of bars for concrete). All reinforcement shall be placed and maintained in position as shown in the drawings.

Contractor

3. The rates for fabrication works should include all operations such as bending rods, binding wires, fixing grills and placing in position. The payment will be made on the basis of the weights of steel rods only. The diameter and linear length of rods will be measured after grills are tied and its fixed in position unless otherwise prescribed. Placement dimensions shall be to the centre line of bars.

Reinforcement will be inspected for compliance with requirements as to size, shape, length, spacing, position after it has been placed but before laying concrete. Before reinforcement is embedded in concrete, the surface of the bars shall be cleaned of heavy flaky crust, if opinion of the Engineer-in-charge are objectionable. Heavy flaky rust that can be removed by firm rubbing with bulb.

(or)

As specified in the clause 11.3 of I.S. 456-1978 unless otherwise specified by the Engineer-in-charge, reinforcement shall be placed with the following tolerances.

- a) For effective depth 20 mm or less, plus or minus 10 mm
- b) For effective depth more than 20 mm, plus or minus 15 mm

The cover, in no case be reduced by more than one-third of specified cover or 5 mm whichever is less. Reinforcement shall be securely held in position so that it will not be displaced during placing of concrete. Special care shall be exercised to prevent any disturbances of the reinforcement in concrete that has already been placed. Welding of bars shall be done as directed by the Engineer-in-charge in conformity with the requirement of clause 11.4 of I.S. 456 – 1978. Chairs, hangers, spacers and other supports for reinforcement shall be concrete in total or other approved materials. Concrete shall be as shown in the drawings.

C. MEASUREMENT :

The diameter, linear length of rods will be measured when grills are tied and fixed in position. The length measure will include overlaps. But overlaps which are not authorised by the Engineer-in-charge will not be measured. Overlaps on account of the contractor will not be measured. The waste cut bits will not be measured. The position on the overlaps should be got approved by the Engineer-in-Charge, before grills are tied. The rates furnished are inclusive of binding wires and should be supplied by the contractor for which no extra payment will be given.

The Engineer-in-charge will supply drawings of reinforcement details and bar bending schedules for adoption.

Contractor

ADDITIONAL CONDITIONS

I. CONCRETE:

- a) Only clean river sand, hard broken granite stones from the approved quarries specified in the tender schedule shall be used for the work. The broken stone shall be thoroughly washed before use.
- b) All concrete for the work shall be machine mixed and vibrated. Hand mixing shall not be allowed.
- c) All concrete shall be protected against injury until final setting. Concrete shall be kept moist continuously for not less than fourteen days.
- d) The contractor must be prepared to conduct test at his own cost, on materials used in the work in standard laboratories and produce test certificate to ensure quality of materials.

2. STONE MASONRY :

A. Only clean river sand and good stone shall be used on the works.

B. In all walls up to a width of 60 cms, bond stones running the wall shall be provided at an interval of 1.80 meters in a line of headers each header overlapping the other by 30 cms or more shall be provided from front to back at 1.80 M interval in every course. Care shall be taken not to place the bond stones of successive courses over each other. The position of bond stones shall be marked on both the faces for identification and verification (Tar marking or plaster is to be applied will suffice).

3. ROUGHSTONE AND GRAVEL FOR REVETMENT AND APRON :

- a) Rough stone and gravel should be stacked for pre measurement at the site of work, of the rough stone 110 cft., including 10% chips will be reckoned as 100 cft., while 115 cft., of gravel are required for 100 cft., of finished work.
- b) Payment for these items will be restricted to quantity based on stack measurement or finished work whichever is less. When the revetment should be built up to an uniform depth as directed by the departmental officers, each stone should run to the full depth of the revetment.
- c) The removal of old stone revetment should be stacked for pre measurements 10/11 stacked quantity or the finished works whichever is less will be paid for.
- d) The new chips required for the revetment shall be stacked for pre measurements without any extra claim.

Contractor

SPECIAL CONDITIONS

- 1. The contractor shall be responsible for the safe custody and storage of the materials under dry conditions at the places approved by the Executive Engineer.
- 2. No royalty shall be charged for materials quarried from the Public Works Department (or) Government quarries. Assistance as necessary will be given to the contractor by the department to obtain access to quarries approved by the Executive Engineer. Plot rent shall be charged for the materials stacked in the department land during the course of construction provided such materials are removed in a month after the works are completed.
- 3. Royalty charges for use of private quarries and private land shall be paid by the contractor himself.
- 4. The contractor should make his own arrangements for providing approach road to the work site for which no extra will be paid to him. On completion of the work 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 it in good condition at his own cost throughout the period of the execution of work.
- 5. Reference to Tamil Nadu Building Practice Vol. I & II of 1988 No. is regard to in the schedule of quantities.
- 6. The contractor shall abide by the contract labour regulation of the Public Works Department framed by the Tamil Nadu Government.

7. The contractor should bear his own expenses for providing footwear for any labourer during cement mixing work and all the types of works and on his failure to do so, Government shall be entitled to provide the same and cost will be recovered from the contractor.
8. When there are any complaints of non-payment of wages, the labour bill of the contractor may be withheld pending clearance certificate obtained from the Labour Department.
9. Any amount fallen due the from contractor even after recovery from his bill for this work and other works and due to the contractor will be arranged to be recovered from the contractor under provision of revenue recovery act.

Contractor

10. The Executive Engineer or any officer of the Public Works Department, Government of Tamil Nadu duly authorised in this behalf or such Executive Engineer may put an end to the agreement at his option at any time.
 - (i) Provided in respect of work costing above Rs.2500/-, a notice of 10 days shall be given before such termination of work or for subletting for the portion of the work for any other reason.
 - (ii) And provided that in the case of said work (or) materials, action will be taken as provided in the clause 27.1 of General conditions of contract.
11. When an agreement is terminated under the clause (9) above, the officer terminating the agreement shall have the option to take over any or all the materials and other equipments at a value assessed by him and if the contractor does not agree to this, he shall clear the site by removing at his own cost all such materials, equipment, etc., within 10 days from the termination of the agreement, failing which, the Government may remove and sell the same, holding the proceeds less the cost of removal and sale, to the credit of the contractor.

Superintending Engineer,WRD,
Lower Vaigai Basin Circle, Sivagangai

Contractor

SCHEDULE – D.

(Applicable to all cases of works other than those relating to roads, channels and canals when a minimum of fifty workers are employed)

RULES FOR THE PROVISION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS.

The contractor's special attention is invited to Appendix No.I of General conditions of contract of Tamil Nadu Building Practice and he is requested to provide at his own expense the following amenities to the satisfaction of the Executive Engineer.

1.FIRST AID ;

a) At the work site there shall be maintained in a readily accessible place, first aid appliances and medicines including an adequate supply of sterilised dressings and sterilised cotton wool. The appliance shall be kept in good order. They shall be readily available during working hours.

b) Ambulance Facility :

Where large work places 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 person or persons suddenly taken seriously ill, to the nearest hospital.

The contractor shall at his own expenses provide or arrange for the provisions of bottom wear for any labour doing cement mixing work and the works involving the use of tar, mortar, etc., to the satisfaction of the Engineer in charge and on his failure to do so, Government shall be entitled to provide the same and recover the cost from the contractor.

2. DRINKING WATER :

A. Water of good quality fit for drinking purpose shall be provided for the working people on a scale of not less than fifteen liters per head per day.

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

Contractor

C. Every water supply storage shall be at a distance of not less than fifteen metres from any latrine, drain or any other source of pollutions. Where water has to be drawn from an existing well, 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.

3. WASHING AND BATHING PLACES:

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

4. LATRINES AND URINALS :

These shall be provided within the limits of every places, latrines and urinals in an accessible place and the accommodation, separately for each of them, shall be on the following scale or so directed by the Executive Engineer in any particular case.

- | | |
|--|-------------|
| 1) Where the number of persons employed does not exceed 50 | - 2 seats. |
| 2) Where the number of persons employed | } - 3 seats |
| exceeds 50 but not exceeds 100- | |
| 3) For every additional 100 persons | - 3 seats. |

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 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 out way pits approved by the local Public Health Authority. The contractor shall also employ adequate number of scavengers and conservancy staff to keep the latrines and urinals in a clean condition.

5. 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.

Contractor

6. CRECHES :

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

1) Thatched roofs 2) Mud floors and walls 3)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 ayah 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 one aaya to look after the children of women workers.

c) The size of crèche or crèches shall vary according to the number of women workers.

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

7. CANTEENS:

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

8. SHEDS FOR WORKERS:

The contractor should provide at his own expense sheds for housing his workmen. The 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 1.8m x 1.5m for two persons shall be provided. The sheds to be in rows with 3 meters clear space between sheds and 9 meters 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 space of 12 meters around.

Contractor

9. GENERAL RULES AS TO SCAFFOLDS:

- a) Suitable scaffoldings shall be provided for workmen for all works that cannot be safely done from ladder or by other means.
- b) Scaffold shall not be constructed, taken down or substantially altered except,
 - i) Under the supervisions of a competent and responsible person and
 - ii) As far as possible by competent workers possessing adequate experience in such.
- c) All scaffolds and appliances connected therewith and all ladders shall, be of sound materials.
- d) Scaffolds shall be so constructed that no part thereof can be displaced, shall be evenly distributed.
- e) Scaffolds shall not be overloaded and so far as practicable to the load shall be evenly distributed.
- f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- g) Before allowing scaffolds to be used by his workmen every employer shall ensure whether the scaffold has been operated by his workmen or not, steps to be taken to ensure that, scaffolding is complete fully with the requirements to this Article.

10. WORKING PLATFORMS, GANGWAYS AND STAIRWAYS SHOULD BE

- 1.
 - a) so constructed that no part there can save unduly or unequally
 - b) be so constructed and maintained having regard to the prevailing conditions so as to reduce as far as practicable risks of persons tripling or slipping;
 - c) be kept free from any unnecessary obstruction.
- 2. In the case of working platforms gangway working places and stairways at a height exceeding that to be prescribed by national laws or regulations.
 - a) Every working platform and every gangways shall be closely and boarded unless the adequate measures are taken to ensure safety.

Contractor

- b) Every working platform and every gangway shall have adequate width and every working platform gangway working place and stairway shall be fenced.
- 3.
 - a) Every opening in the floor of a building or in a working platform shall except and the extent required to allow the excess of persons or the transport

of shifting of manufacture provided with suitable means to prevent the fall of persons or materials.

- b) When persons are employed on a roof where there is a danger of falling from a height exceeding, that to be prescribed, by National Laws of regulations, suitable precautions shall be taken to prevent the fall of person or materials.
- 4. a) Some means of access shall be provided to all working platforms and other working places.
- (b) Every place where work is carried on and the means of approach, there shall be adequately lightened.
- (c) Every ladder shall be securely lined one of such length to provide secure handhold and foothold at every position at which it is used.
- (d) Adequate precautions shall be taken to prevent danger from electrical equipment.
- (e) No materials on the site shall be so stacked or placed as to be caused danger to any person.

11. HOISTING APPLIANCES :

- 1) Hoisting machines and shackle including their attachments anchorages and supports shall,
 - a) be of good mechanical construction, sound materials and adequate strength and free from patent defect; and
 - b) Be kept in good condition and in good working order.
- 2) 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.

Contractor

- 3) Hoisting machines and shackle shall be examined and adequately tested after erection on the site and before use and shall be re-examined in position at intervals to be prescribed by national laws or regulations.
- 4) Every chain, ring, hook, shackle and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- 5) Every crane driver or hoisting appliance operator shall be properly trained.

- 6) No person of underage to be prescribed by National Laws or Regulations shall be in control of hoisting machine, including any scaffold, which are given signals to the operator.
- 7) In case of every hoisting machine and of every climbing hook, shackle swivel and pulley block are used in hoisting or lowering or as a means.
- 8) Every hoisting machine and all gears referred to in the preceding paragraph shall be marked with paint the safe working load.
- 9) 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.
- 10) No part of any hoisting machine or of any gear referred to in paragraph seven above shall be loaded, beyond the safe working load, except for the purpose of testing.
- 11) Motors gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards.
- 12) Hoisting appliances shall be provided with such means as will reduce to a minimum risk of the accidental descent of the load.
- 13) Adequate precaution shall be taken to reduce to a minimum the risk of any part of the suspension load becoming accidentally displaced.

12. SAFETY EQUIPMENT AND FIRST AID:.

Safety Code:

The safety measures and all amenities for the labours shall be made by the contractor at his cost as indicated in the safety code, vide appendix to General Conditions to Contract and clause 34, 35 and 42-1 to 42-6 of General Condition to Contract.

Contractor

- 1) All machinery, personal safety equipments shall be kept available for the use of the person employed on the site and be maintained in a condition suitable for immediate use.
- 2) The workers shall be required to use the equipment as provided and the employer shall take adequate steps to ensure proper use of the equipment by those concerned.
- 3) When work is carried on, in proximity to any place where there is a risk of danger, all necessary equipment, shall be provided and kept ready for use, and all necessary steps shall be taken for the prompt rescue of any person in danger.

4) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during the course of work.

13. PAYMENT :

1. When there are complaints for non-payment of wages, payment to contractor will be withheld pending clearance certificate from the Labour Department.
2. All payment of wages shall be made on a working day, except when the work is completed before the expiry of the wage period, of which case final payment bill, beyond within 48 hours of the last working day. The term working day means, a day on which the labourer is employed is in progress.
3. Any person aggrieved by the decision of the Commissioner of Labour or the officers deputed by him to conduct enquiry may appeal against such decision of the Chief Engineer-in-charge of the building works. The Commissioner of Labour shall be appellate authority in this regard.
4. The contractor is bound to allow or cause to be allowed to the labourers directly or indirectly employed in the works one day rest for six days continuous work and pay wage at the same rate as for duty. In the event of default the Executive Engineer or Sub Divisional Officer concerned shall have the right to deduct the sums not paid on account of wages for weekly holiday to any labourer and pay the same to the persons entitled thereto from any money due to the contractor.

Contractor

5. In case of an appeal made by the contractor under clause-3 above actual payment to labourers will be made by the Executive Engineers after the Commissioner of Labour has given his decision on such appeal.
6. A workman shall be entitled to be represented in any investigation or enquiry under those regulations by
 - a) All officers registered under Trade Union of which he is a member
 - b) An officer of a federation of trade which to which the trade union referred to in clause (a) is utilised.

- b) Where the employer is not member of any Association or by an officer an Association of employer connected with or by other employer engaged in the industry in which the employer is engaged
- ii) a) No part shall be entitled to be represented by a legal Practitioner in any investigation enquiry under these regulations
 - b) All fines realised from the workers shall be applied only to such purpose beneficial to the person employed by specific authority.
 - c) Where the worker is not a member of any registered trade union or an officer of a registered trade union connected with or by any other workmen employed in the industry in which the worker is engaged.
- iii) a) An officer of an Association of employers to which he is a member
 - b) An officer of a federation of "Association of Employers to which the Association referred to in clause (a) above is affiliated.
- 1. The contractors shall maintain in a wages in a wage register of each worker in such form as may be convenient, but at the same time it shall include the following particulars.

Contractor

- a) Rate of daily or monthly wages, nature of work on which employed, total number of days worked during each wage period, all deduction from the wages with an indicator in each case of the ground for which deduction made and wages actually paid for each wage period.
- b) The contractor shall also maintain a wage card for each worker employed on the work. The wage slips should also contain the particulars as in the above clause. Every contractor shall get the signature or thumb impression of every worker in wage books.

Superintending Engineer, WRD,
Lower Vaigai Basin Circle, Sivagangai

Contractor