

Nit. 2/ 2022-2023 - 2

Water Resources Department

Trichirappalli Region, Trichirappalli.

Lower Cauvery Basin Circle, Thanjavur.

TENDER SCHEDULE

(Two Cover System - Price Tender)

NAME OF WORK Construction of a Check dam across

Maharajasamudram River in Sillathur

Village of Orathanadu Taluk in

Thanjavur District.

LAST DATE FOR RECEIPT : 27.05.2022 up to 12.00 Noon

OF TENDER

WRD

Lower Cauvery Basin Circle, Thanjavur

ANNEXURE

Particulars to be furnished by Tenderer

1	Name of Tenderer	:	
2	Name of work	:	Construction of a Check dam across Maharajasamudram River in Sillathur Village of Orathanadu Taluk in Thanjavur District.
3	Date of tender	:	
a)	In person	:	
b)	By Registered post	:	
4	Total value of tender	:	
5	Details about E.M.D. enclosed for this tender and its nature of remittance and validity	:	
6	Registered Class of the tenderer with monetary limit and department in which registered (Certified copy of the live-registration order should be attached)	:	
7	Recent works executed; details about name and place of work Agt. No. and value of works etc., should be given	:	
8	Works under execution; details about name and place of work, Agt. No. & value of works, etc., should be furnished.	:	

9	Command of labour in brief	:
10	Turnover of previous years (Particulars for a period of five consecutive years are to be furnished)	:
11	Whether current Income - tax clearance Certificate saral form is enclosed?	:
12	Whether current GST Clearance Certificate is enclosed?	:
13	GST Registration No.	:

INSTRUCTIONS TO TENDERERS

- The tenderer shall inspect the site of work before tendering and satisfy himself as to the nature of work, materials provided and their availability, quarry specified, etc.,
- 2) The tendered work is a "Special work" to be completed in the scheduled time. The tenderer should furnish a letter along with his tender certifying that he has inspected the site of work and satisfied himself to the nature of work, materials provided and their availability, quarry specified etc.,
- 3) The tenderer may present his tender directly or send it by registered post with acknowledgement due or by courier on or before the last date of receipt of tenders. Tenders received after the closure date and time fixed will not be considered, and liable for summarily rejection.
- 4) a) If rate quoted system adopted, the Tenderer should write his rate both in figures and in words one below the other for each item of work given in the Schedule A and if the rates written in figures and in words are different, the lesser rate only will be taken into account for tender comparison purpose.
 - b) While adopting the % tender system the tender should quote their tender. Percentage excess/less for Rs. work with reference to the total estimate value put to tender in the tender Schedule A.
- 5) Tenders containing over writing or corrections which are not attested by the tenderer are liable for rejection.
- 6) The Tenderer should put his full signature in each page of the tender schedule provided for that purpose in token of his acceptance of all the tender conditions and other details stipulated in the tender schedule.
- 7) If rate quoted system adopted. The lumpsum tendered amount (excluding GST) for the whole work should be written both in figures and in words at the prescribed places in the tender Schedule 'A' and if the amount written in figure and in words are different, the lesser amount only will be taken into account for tender purposes.
- 8) The tender submitted in person after the prescribed time on the notified date will not be accepted.
- 9) The postal tender or by courier Tender received after due date and time fixed will also be rejected.

- 10) Tenders received without E.M.D. as prescribed shape in the tender notice will be summarily rejected.
- 11) Tenders with tampered seal will not be accepted.
- 12) The rates should be inclusive of all taxes payable to the Government by the tenderer.
- 13) If any variation has been necessitated either in the schedule 'A' schedule of rates and approximate quantities or under special conditions as a result of tender process, Special condition will be suitably amended or added before acceptance of the agreements or agreed to by both parties to the agreement. Under no circumstances the correspondences pertaining to tender processing will form part of the contract.
- 14) For detailed description of various items of work to be executed in addition to the brief description given in the schedule 'A' and for the rights and obligations of the contractors etc. the attention of the contractor is invited to Tamil Nadu Standard specification/Tamil Nadu Building practice which should be followed in all respects both in letter and spirit. The materials used, the workmanship, the mode of execution of the work etc., should confirm to relevant specifications of Tamil Nadu Building Practice (T.N.B.P.) or National Building code or Indian Standard Specification as may be specified.
- 15) The tenderer shall quote the rates and prices in figures for all the items of the works described in the bill of quantities excluding GST
- 16) A copy of the tenderers registration in PWD as a contractor and live certificate shall be attached with the tender.

The tenderer should furnish the copy of Goods and Service Tax (GST) Registration No.

Current Income Tax clearance certificate shall be enclosed with the tender.

INPUT TAX CREDIT (ITC)

i)As per Notification 202, dated. 29.06.2017 and as per sub-section (2) of Section 7 f 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.

ii)As per Chapter IX (Section 41) of the Tamil Nadu Goods and Services Act, 2017, every registered persons may be entitled to take the credit of eligible input tax, as self- assessed, in his return and such amount shall be credited on a provisional basis to his electronic credit ledger

TOTAL TENDER PRICE

The total tender price will be the cumulative of value quoted for construction (Total Basic Rate + 12% of GST).

NEGOTIATIONS

The lowest tenderer will be identified who quotes lowest total tender price which including GST as per the clause...Negotiation of rates will be made only with the lowest tenderer for reducing the quoted rates and the negotiation will be made for the rates quoted to the items in the construction part alone and not for GST amount.

After negotiation with lowest tenderer, the GST amount will be recalculated at 12% of the sum of the Negotiated tender value (excluding GST) for construction Cost specified in the BOQ, subject to GST rate applicable from time to time as recommended by the GST Council.

AWARD OF CONTRACT

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

ADDITIONAL GENERAL CONDITIONS (I.E., IN ADDITION TO GENERAL CONDITIONS TO CONTRACT APPENDED WITH T.N.S.S.)

- 1. Postal Tenders:-
- The Contractor may have the option to present the tender directly or to send it by registered post with acknowledgement due, or by courier. However the tender should reach this office on or before last date and time fixed for receipt of tender.
- 3. In case of sending tenders by registered post with 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 receipt of tenders.
- 4. 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...
- 5. Tenders offered in person before the last date and postal tenders received within time will be opened in a consolidated manner on the notified date for opening of tenders.

APPENDIX - I TENDER NOTICE

(for L.S. Contract)

(As amended in G.O. Ms. No.618/P.W/ dated 30th April, 1985)

On behalf of the Governor of Tamil Nadu, tenders will be received by the Superintending Engineer, PWD/WRO., Lower Cauvery Basin Circle, Thanjavur at his office at Thanjavur upto 12.00 Noon on 27.05.2022 for the work of "Construction of a Check dam across Maharajasamudram River in Sillathur Village of Orathanadu Taluk in Thanjavur District."

As per Tender Schedule 'A'

The tender should be in the prescribed form obtainable from the Superintending Engineer's office. The tenders will be opened by the Superintending Engineer, WRD., Lower Cauvery Basin Circle, Thanjavur at his office and at 12.30 PM on 27.05.2022.

- 2. Tenders must be submitted in sealed covers and should be addressed to the Superintending Engineer, WRD., Lower Cauvery Basin Circle, Thanjavur, the name of the tenderer and the name of the work being noted on the cover.
 - (i) 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 it's corporate existence.
- 3. Each tenderer must also send a certificate of income tax verification from the appropriate income-tax authority in the form prescribed therefor. The certificate will be valid for one year from the date of issue, of all tenderers submitted during the period.
 - (i) In the case of proprietary or partnership firm, it will be necessary to produce the certificate afore-mentioned for the proprietor or proprietors and for each of the partners as the case may be.
 - (ii) If the tenderer is a registered PWD. 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, to be given.

- (iii) All tenders received without a certificate as afore-mentioned will be summarily rejected.
- 4. Each tenderer must pay, as Earnest Money, a sum of Rs.1,95,000/-(Rupees One lakh and ninety five thousand only) into the branch of State Bank of India or in to the Government Treasury or sub-Treasury within the jurisdiction of the Executive Engineer concerned to the credit of revenue deposits on behalf of the Executive Engineer of the Division and enclose with his tender the chalan endorsed accordingly.

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. At present in at the Earnest Money Deposit can also be accepted in the form of National Savings Certificates / Small Savings Scripts / Deposits / Accounts / issued by the Post Office duly endorsed in favour of the Executive Engineer, WRD., Agniar Basin Division, Pattukkottai. In case, the Earnest Money Deposit is produced in form of demand draft issued by the National Banks and Scheduled Banks, the successful tenderer will have to replace the Earnest Money Deposit in the shape of National Savings Certificate duly pledged in favour of the Executive Engineer concerned vide G.O.Ms. No.143 / Finance / Small Savings Department dated 27th February 1986. National Savings Certificates not pledged in favour of the Executive Engineer concerned will not be accepted. Irrevocable. Bank guarantees will also be accepted. This Earnest Money will be refunded to the unsuccessful tenderer on application, after intimation is sent for rejection of the tender or at the expiration of 90 days from the date of tender, whichever is earlier. This refund will be authorised by the Superintending Engineer/ Executive Engineer by suitable endorsement on the Chalan. The Earnest Money will not be received in cash or currency notes by the Public Works Department Officer, say in exceptional cases, where there are no Treasuries or Banks within the jurisdiction of the Officer calling for tenders. When currency notes are given, the tenderer should sign his name in full with date, on the back side of all the currency notes given by him whatever their denominations may be.

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.

a. 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% of 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.

- 5. The tender will remain valid for a period of 90 (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.
 - (i) The tenderer whose tender is under consideration shall attend the Superintending Engineer's Office before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the specified period, his tender will not be considered. He shall forthwith, upon and intimation being given to him of acceptance of his tender by the officer duly authorised in this behalf under Article 299 (i) of the Constitution, herein after called "the accepting authority" make security deposit of 2 percent of the value of contract in one of the forms prescribed in Tamil Nadu Public Works Account Code (i.e. by taking into account of the amount of Earnest Money Deposit, already deposited with the tender, it would be sufficient to pay the balance amount to make up the 2 percent of the value of contract, for the purpose of security deposit)
 - (ii) The security deposit together with earnest money deposit and amount withheld according to clause 64.1 of General conditions to the contract, shall be retained as security for due fulfillment of contract. If a cash security deposit is made by the contractor, he shall follow the procedure laid down in the preceding paragraph for payment of earnest money deposit and such deposit shall not bear any interest.
 - (iii) On receipt of written communication of acceptance of tender, if the tenderer fails to pay the requisite security deposit within the period specified in the written communication or backs out from the tender or withdraws his tender, the earnest money deposit shall be forfeited and credited to the Government.
 - (iv) If the contractor fails to carryout the contract, after paying the requisite deposits, then he will be liable for the excess expenditure if any incurred by the Department, to complete the work as contemplated in the General conditions to the contract.
 - (v) It shall be expressly understood by the tenderer, that on receipt of written communication of acceptance of tender firm the accepting authority, there emerges a valid contract between the Governor of Tamil Nadu 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 Condition 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 the foundation of the rights of both the parties of 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 Tamil Nadu Building Practice and also the general conditions to contract contained therein and sign the Divisional Office copy of the Tamil Nadu Building Practice and its addenda volume in token of such study before submitting his tender unit rates, which shall be for finished work insites. He shall also carefully study the drawings and additional specifications and all the documents connected with the contract. The Tamil Nadu Building Practice and other connected documents with the contract, such as specifications, plans, descriptive specification sheet regarding materials, etc., can be seen at any time between 11.00 a.m. and 5.00 p.m. on office working days in the office of the Superintending Engineer, WRD., Lower Cauvery Basin Circle, Thanjavur.
- 7. The tenderer's attention is directed to the requirements for material under the clause "Materials and Workmanship" in the "General Conditions to 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 names of quarries and kilns, etc., where from certain materials are to be obtained will be given in the Descriptive Specifications Sheet. The best class of materials to be obtained from the quarries of other source, defined shall be used on the work. In every case the materials must comply with the relevant Standard Specifications. 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 quality 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 concerned.
 - (i) 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-judged the materials available. Attention of the contractor is directed to the "General Conditions to the Contract" regarding payments of seigniorage, tolls, etc.,

- 9. The tenderer's particular attention is drawn to the sections and clauses in the General conditions to contract dealing with:
 - 1. Test, inspection and rejection of defective materials and work
 - 2. Carriage
 - 3. Construction Plant
 - 4. Water and lighting
 - 5. Cleaning up during progress and for delivery
 - 6. Accidents
 - 7. Delays
 - 8. Particulars of payment.
 - (i) 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 this schedule is liable to alterations, by omissions, deductions or additions at the discretion of the **Executive Engineer**, **WRD.**, **Agniar Basin Division**, **Pattukkottai** or the Superintending Engineer, Water Resources Organisation, Lower Cauvery Basin Circle, Thanjavur or as set-forth in the conditions of the contract. The tenderer 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 paise. The rates should be written both in words and in figures and the units in words.
 - (i) The tenderer should also show the total of each item and the grand total of the whole contract, and quote in the tender a lumpsum for which he will undertake to do whole work subject to the conditions of contract such lumpsum agreeing with the total amount of Schedule 'A'. This Schedule accompanying the lumpsum tender shall be written legibly and free from erasers, over writings or conversion of figures. Corrections where unavoidable should be made by crossing out, initialing, dating and rewriting.
- 11. Tenderers offering a percentage deduction from or increase the estimate amount and those not submitted in proper form or in due time will be rejected. Rates for lumpsum amounts for items not called for shall not be included in the Tender. No alteration which is made by the tenderer in the contract form, the conditions of contract, the drawings, specifications or quantities accompanying same will be recognized; and if any such alterations are made, the tender will be void.

- 12. The price at which and the source from which certain particular materials shall be obtained by the contractor are given at the end of the schedule accompanying the tender form. Tenderers must accept the materials at these prices, and shall quote their price for finished work accordingly. Not withstanding 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 charges will be borne by Government in connection with this supply.
- 13. The attention of the tenderers 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 rate of progress and proportionate value of work done from time to time as will be indicated by the Executive Engineer's certificate of the value of work done.

Date of commencement of this programme will be the date on which the site (or premises) is handed over to the Contractor.

Period for completion of work : 15 Months

Mile Stone attached separately

NOTE:-

The periods to be entered in column 1 for the purpose of defining the rate of progress may be fixed by the Executive Engineer/Superintending Engineer to suit each case.

15. No part of the contract shall be sub let without written permission of the **Executive Engineer, WRD., Agniar Basin Division, Pattukkottai**. nor shall transfer be made by power of attorney, authorising others to receive payments on the contractor's behalf.

- 16. If further necessary information is required, the Executive Engineer of the Division will furnish such, but it must be clearly understood that tenders must be received in order and according to instructions.
- 17. The Superintending Engineer or other sanctioning authority reserves the right to reject any tender or all the tenders without assigning any reasons therefore.
- 18. The tenderers who are themselves not professionally qualified shall undertake to employ qualified technical men at their cost to look after the work. The tenders 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. Incase selected tenderer is professionally qualified or has undertaken to employ technical men under him, he should see that one of the technically qualified men is always at the site of the work during working hours personally checking all items of work and paying extra attention to such works as may demand special attention (eg.) reinforced cement concrete works, etc.

In the form at below:- the latest norms fixed by Government for employment of Technical Assistants from time to time and penalty for non-employment of such Technical Assistant etc., are incorporated.

Scale and Qualification for Employment of Technical Assistant.

SI. No.	Value of Contract	Qualification and number of Technical Assistants to be employed
1	2	3
1	Upto Rs.1.00 lakh	No Technical Assistant need be employed. If situation and nature of work warrants, i) A Diploma holder in Civil Engineering. Or ii) A retired Junior Engineer may be employed.
2	From Rs.1.00 lakh upto Rs.5.00 lakhs	i) One Diploma holder in Civil Engineering. Or ii) Not less than one retired Junior Engineer.
3	From Rs.5.00 lakhs upto Rs.10.00 lakhs	i) One B.E. (Civil) Or ii) Equivalent degree holder Or iii) Not less than one retired Assistant Executive Engineer / Assistant Divisional Engineer. Or iv) One Diploma holder with three years experience

4	From Rs10.00 lakhs upto Rs.25.00 lakhs	i) One B.E., (Civil) with 3 years experience plus one diploma holder in Civil Engineering. Or ii) Equivalent degree holder with 3 years experience plus one diploma holder in Civil Engineering Or iii) Not less than one retired Assistant Executive Engineer / Assistant Divisional Engineer plus one diploma holder in Civil Engineering. Or iv) Two diploma holders in Civil Engineering with 3 and 5 years experience respectively.	
5	From Rs25.00 lakhs upto Rs.50.00 lakhs	 i) One B.E., (Civil) with 3 years experience plus two diploma holders in Civil Engineering. Or ii) One B.E., (Civil) with 3 years experience plus two retired Junior Engineers. Or iii) Equivalent degree holder with 3 years experience plus two diploma holders in Civil Engineering / two retired Junior Engineers. Or iv) One retired Assistant Executive Engineer / Assistant Divisional Engineer plus two diploma holders in Civil Engineering. Or V) One retired Assistant Executive Engineer / Assistant Divisional Engineer plus two retired Junior Engineers. 	
6	Above Rs.50.00 Lakhs	(To be examined in individual cases depending upon the nature of work and the technical skill involved and defined in the Tender Notice regarding the number of qualified technical personnel to be employed by the contractor.)	

Key Personnel:

The applicant shall have a Project Manager together with site Engineer with degree in civil Engineering, Diploma in civil Engineering with minimum field experience noted against each, available as given below, exclusively for this work.

1. Project Manager : **1 No**. (One number) Degree in Civil

Engineering, with at least Five years Experience in executing similar works.

2. Site Engineers : a) **2 Nos.** (Two numbers)

Degree in Civil Engineering with at least

five years Experience and

b) **3 Nos**. (Three numbers) Diploma in Civil Engineering with at least Three

years experience.

If the tenderer, who is not professionally qualified, fails to employ the technical men as indicated above on the works, penalty shall be levied as followed during the period of non employment of technical men.

NOTE: (1) Items 1,2,3,4,5 and 6 should be scored out in case, where not applicable to the particular work.

NOTE: (2) A penalty of Rs. 2000 per month for diploma holder, Rs. 5000 per month for degree holder be levied in case of default on the part of contractors in following the norms laid down above.

NOTE: (3) The employment of Technical Assistants could be based only on the value of contract.

NOTE: (4) Engineers with Mechanical Engineering qualification and retired from Civil Engineering department are also suitable to supervise the Civil Engineering works because of their experience in Civil Engineering field.

NOTE: (5) In case of contractor who is professionally qualified is not in a position to remain always at the site of work and to pay extra attention to such works as may demand special attention (e.g). R.C.C works, etc. he should employ technically qualified men as prescribed above.

- 20. A tenderer submitting a quotation which the tender accepting authority considers excessive and or indicative of the insufficient knowledge of current prices of definite attempt at 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 for materials, price permissible for the tenderer to charge 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 offer employment to ex-toddy tappers as far as possible. The number of ex-toddy tappers to whom he can and he should under take in the contract to offer such employment to such number.
- 22. The contractor shall comply with the provisions in 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 be at his discretion, cancel the contract or evoke any of the penalties for the breach of the contract provided in the conditions of contracts. The contractor shall also be liable to 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, Tamil Nadu.

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 payment to the apprentices as required under the said Act.

Value of Contract	Category	Number to be appointed
(1)	(2)	(3)
One Lakh and upto Rs.3.00 Lakhs	1 Building Constructor 2 Brick Layer	1 1
Above Rs.3 Lakhs and up to Rs.10.00 Lakhs	 Building Constructor Brick Layer Diploma holder in Civil Engineering 	1 1 1
Above Rs.10.00 Lakhs and upto Rs.50.00 Lakhs	1 Building Constructor 2 Brick Layer 3 B.E. (Civil)or Equivalent Degree Holder	1 1 1

"Unless the contractor has been exempted from engagement of apprentices by the Director or 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".

Contractor

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

APPENDIX II (A) TENDER

(For L.S. Contract)

(As amended in G.O. Ms. No. 618 P.W. dated 30 th April 1985)

То	Date:
His Excellency the Governor represented by the Superin WRD., Lower Cauvery Bas	tending Engineer,
Sir,	
execute the following wo specification Construction Sillathur Village of Orac Office of the Superintendin such variations by way of works and method of payr for the sum of	Only) or such
other sums as may be arr	rived at under the clause of "General Conditions to the

2. I/ We have also complete 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.

Contract" relating to payment on lumpsum basis or by final measurements at unit

3. I/ We do hereby distinctly and expressly declare and acknowledge that before the submission of my or our tender I / We have carefully followed the instructions in the tender notice and have read the Tamil Nadu Building practices and the General Conditions to the Contract therein and the Tamil Nadu Building Practice addenda Volume, and that I / We have made such examination of the contract documents and of the plans, specifications, quantities and of the location, where the said work is to be done, and such investigation of the work required to be done, and in regard to the materials required to be furnished as to enable me / us, to thoroughly understand the intention of the same and the requirement, covenants, stipulations and restrictions contained in the contract and on the said plans and specifications and distinctly agree that I / We will not thereafter make any claim or demand upon the Government based upon or arising out of any alleged misunderstanding or misconception of mistake on my / our part of the said requirements, covenants, stipulation and restrictions and conditions.

prices.

I/ We being a Registered Public Works Department Contractor.
I / We have already produced an income Tax verification Certificate during the current calender year in respect of
(here particulars of previous occasions on which the certificate was produced should be given). The legal address of the contractors for service of all letters and notices will be as follows:
5. (i) (a) I/ We enclose herewith a Chalan for the payment of the sum of Rs
Deposit not to bear interest. Only) as Earnest Money
5. (i) (b) I /We have paid Rs/- (Rupees
Only) as against the E.M.D. of Rs/-
(Rupees
5. (i) (c) In lieu of Cash Deposits I / We have enclosed a
drawn/ endorsed pledged in favour of the Executive Engineer, WRD., Agniar Basin Division, Pattukkottai 5. (i) (d) I am / We are
6. If my / our tender is not accepted, this sum shall be returned to me / us on my / our application when intimation is sent to me / us rejection or at the expiration of two months from the date of this tender, which ever is earlier. If My/ Our tender is accepted, the Earnest Money shall be retained by the Government as security for the due fulfilment of contract. If upon intimations being given to me / us by the authority authorised by the Governor of Tamil Nadu under article 299 (i) of the Constitution (herein after called "the accepting authority") of acceptance of tender.

I / We enclose an Income Tax verification certificate.

Contractor

4.

- 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 by post to (Registered or Ordinary) or left at my / our address given herein my/our address 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 Tamil Nadu and the tender documents (i.e). Tender Notice, Tender with Schedules, General Conditions to the Contract and Special Conditions of the Tender, negotiation letters, communication of acceptance of tenders, shall constitute the contract for this purpose and be the foundation of rights of both the parties, as defined in Clause 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 Tamil Nadu Building Practice and National Building Code and Addenda Volume thereto, maintained in the Office, in acknowledgement of being bound by all conditions of the clauses of General Conditions to the Contract and all Specifications for items of work described by a specification number in Schedule 'A'.
- I / We agree subject to said conditions to execute and complete the works shown upon the said drawing serially from number 1 to 3 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 addition or alterations, deductions from, the said work and method of payment therefore as are provided for in the said conditions.
- 10. The term "Executive Engineer" in the said conditions shall mean the Public Works Department Officer in charge of the **Agniar Basin Division**, **Pattukkottai** having jurisdiction for the time being over the work, who shall be competent to exercise all the powers and privileges reserved, herein favour of the Government with the previous sanction of or subject to ratification by the competent authorities in case where such sanction of ratification may be necessary and who has been duly authorised under Article 299 (1) of the Constitution.

- 11. I/ We agree that the time shall be considered as the essence of this Contract and to commence the work as soon as this contract is accepted by the competent authority as defined by the Tamil Nadu Public Works Department Code and the site (or Premises) handed over to me / us as provided for in the said conditions and agree to complete the work within **15 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 provisions for extension of time contained in Clause 56 of the 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, WRD., Agniar Basin Division, Pattukkottai** the Security Deposited by me / us as here in before recited or such portion thereof as I / We may be entitled to under the said conditions be paid back to me / us provided in Clause 64 of the General Conditions to the Contract.
- 13. I am / We are professionally qualified and my / our qualifications are as follows

I / We in pursuance of clause 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.

Name of Technical Staff Proposed to be employed	Qualifications	Experience
1	2	3

1.

2.

3.

4.

- 14. I / We agree that the arbitrator for fulfilling the duties set forth in the arbitration clause of the General Conditions to the Contract shall be:-
- (i) The superintending Engineer of the Vellar Basin Circle Cuddalore in case the value of claim is up to Rs.50,000/- and (ii) I / We agree that in case, the value of claim is Rs.50,001/- and above the remedy will be through the competent Civil Court only.

Date:	Signature of the Contractor

15.	In pursuance of the	negotiation	n with	the	Superintending	Engineer	of Lowe
Cauver	y Basin Circle, Thanja	avur / on					

I /We agree to reduce the rates for the items, in the Schedule as follows:

Serial	Item	Short Description	Reduced rate
number	Number		per unit
(1)	(2)	(3)	(4)

Date :	Signature of the Contractor.
16. On behalf of the Governor of Tamil N Governor under Article 299 (I) of the constitution	,
(Rupees	

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

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

SCHEDULE - 'A'

SCHEDULE OF RATES AND APPROXIMATE QUANTITIES:

- a. The quantities given those upon which the lumpsum 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 of the 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 that (not withstanding any custom or practice to be contrary) according to the actual quantities when, in place and finished according to the drawings or as may be ordered from time to time by the Executive Engineer and the cost calculated by measurement or weight at the respective prices, without any additional charge for any necessary and contingent works connected therewith. The rates quoted are for works in site and complete in every respect.

SI No.	Approximate quantity in figures and in words.	Description of Work	T.N.B.P SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
1	2	3	4	5	6	7

(Vide Separate sheet enclosed)

Signature of Contractor Date:

Name of Work: Construction of Check Dam across Maharajasamudram River in Sillathur Village of Orathanadu Taluk in Thanjavur District.

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B.P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
1	80000.00 m ² (Eighty thousand square metre)	Clearing Scrub jungle and destroying them effectively as directed by the departmental officers.			1 m ² (One square metre)	
2	5195.00 m ³ (Five thousand one hundred and ninety five cubic metre)	Earth work open excavation in all kinds of soils and sub soils and depositing on bank with an initial lead of 10 m and initial lift of 2 m except hard rock requiring blasting to full depth as may be directed inclusive of shoring, strutting ,bailing out water wherever necessary as per standard specifications.	23 & 24		1 m ³ (One cubic metre)	
3	208.00 m ³ (Two hundred and eight cubic metre)	Supplying and Filling with M-sand in layers of not more than 20cm thick well watered rammed and consolidated complying with standard specification etc., complete as directed by the departmental officers.			1 m ³ (One cubic metre)	
4 a)	2010.00 m ² (Two thousand and ten square metre)	Supplying and erection of steel centering for sides and soffits without strutting upto 3m height for plain surface with all cross bracings using mild steel sheets of size 90 X 60 cm.and thickness of B.G 10 stiffened with welded M.S. angles of size 25x25x3 mm for boarding laid over country wood joist of size 10cm x 6.5cm. Spaced at 90cm c/c and supported by casurina props of 10 to 13cm dia (spaced at 75 cm) c/c complying with standard specification and as directed by the Departmental Officers.	30 & 86A		1 m² (One square metre)	
b)	1140.00 m ² (One thousand one hundred and forty square metre)	Supplying and erection of steel centering for sides and soffits with strutting upto 3m height for plain surface with all cross bracings using mild steel sheets of size 90 X 60 cm.and thickness of B.G 10 stiffened with welded M.S. angles of size 25x25x3 mm for boarding laid over country wood joist of size 10cm x 6.5cm. Spaced at 90cm c/c and supported by casurina props of 10 to 13cm dia (spaced at 75 cm) c/c complying with standard specification and as directed by the Departmental Officers.	30 & 86A		1 m ² (One square metre)	

T-25

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B.P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
1	2	3	4	5	6	7
5	145.00 m ³ (One hundred and forty five cubic metre)	Plain Cement Concrete 1:3:6 (One cement, three sand and six aggregate) using 40 mm size hard broken stone jelly for foundation including dewatering if found necessary and laid in layers of not more than 15 cm thick including ramming, watering and curing etc., complete complying with standard specifications and as directed by the Departmental Officers	28		1 m ³ (One cubic metre)	
6	376.00 m ³ (Three hundred and seventy six cubic metre)	Plain cement concrete 1:2:4 (one cement two sand and four aggregate), (M15 grade) using 20mm size hard granite stone	28		1 m ³ (One cubic metre)	
7	2060.00 m ³ (Two thousand and sixty cubic metre)	Providing and placing Plain Cement Concrete 1:2:4 (One cement, two sand and four aggregate) using crusher broken hard granite coarse aggregate (well graded) using 60% of 40mm and 40% of 20mm (To achieve the specified characteristic strength of 15N/mm² in 28 days) and mixing the ingredients in approved mixer placing in layers and vibrating, water curing, finishing the surface with all leads and lifts etc., complete in all respects so as to attain the profile and strength specified in the approved drawing and specifications, as per the direction of the engineer in charge of works and complying with technical specifications.	28		1 m ³ (One cubic metre)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B.P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
1	2	3	4	5	6	7
8	43.00 m ³ (Forty three cubic metre)	Providing and laying in position, standardised concrete mix M25 grade in accordance with IS:456-2000, using 20mm and down graded hard granite stone jelly for all RCC items of works with minimum cement content of 350kg /m3 and maximum water cement ratio of 0.5, including admixture (Plasticiser / super plasticiser) in recommended proportion as per IS:9103 to accelerate , retard setting of concrete, improve workability without impairing strength and durability with about (5.0 cu.m) 7730kg of 20mm machine crushed stone jelly and with about (3.3 cu.m) 5156kg of 10-12mm machine crushed stone jelly and with about (4.79cu.m) 7670kg of sand , but excluding cost of reinforcement grill and fabricating charges , centering and shuttering and also including laying, vibrating with mechanical vibrator, finishing, curing , etc., complete complying with standard specification and as directed by the departmental officers. The coarse and fine aggregate to be used should comply with the requirements of IS standards.(No separate payment will be made by the Department for the excess usage of materials)	28		1 m ³ (One cubic metre)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B. P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
9	265.00 m ³ (Two hundred and sixty five cubic metre)	Providing and laying in position standardised concrete Mix M-20 Grade in accordance with IS 456-2000 using 20mm and downgraded hard broken granite stone jelly for all RCC items of works with minimum cement content of 325 kg/m3 and maximum water cement ratio of 0.55 including admixture (Plasticizer/Super plasticizer) in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability with about (5 cu.m) 7730 kg of 20 mm machine crushed stone jelly and with about (4.79 cu.m) 7670 kg of sand, but excluding cost of reinforcement grill and fabricating charges, centering and shuttering and also including and laying, vibrating with mechanical vibrators, finishing, curing etc., complete complying with standard specifications and as directed by the departmental officers.	28		1 m ³ (One cubic metre)	
10	360.00 Qtl (Three hundred and sixty quintal)	Supplying, fabrication & placing in position of ribbed tor steel for steel grills for all RCC works including cost of steel & binding wire and labour charges for decoiling, cutting, bending & tying the coils etc., complete complying with standard specification and as directed by departmental officers.	86 & 86A		1 Qtl (One quintal)	
11	125.00 m ³ (One hundred and twenty five cubic metre)	Supplying and filling below Cement Concrete Block with 40CM thick graded inverter filter provided in two or more layers (ie 20,40 and 63mm) size metal provided in two or more layers complying with standard specification and as directed by departmental officers.			1 m ³ (One cubic metre)	
12	31.00 m ³ (Thirty one cubic metre)	Supplying and filling of Gravel in between the gap of Cement Concrete Block with 75mm thick,etcComplying with standard specification including stacking charges and labour charges and directed by the departmental engineers in charge of the work.			1 m ³ (One cubic metre)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B. P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
13	738.00 m ³ (Seven hundred and thirty eight cubic metre)	Supplying and filling loose boulders of Size more than 300mm and weight more than 40kg in U/S and D/S apron including conveyance, cost of materials etc. Complying with standard specification and as directed by the departmental Engineers incharge of the work.			1 m ³ (One cubic metre)	
14	62.00 m ³ (Sixty two cubic metre)	Supplying and Fixing of Expansion Board for Walls (water proof) 20mm thick including cost of required accessories @ suitable Interval as directed by the departmental officers.	Special		1 m ³ (One cubic metre)	
15	25.00 m ² (Twenty five square metre)	Supplying and Fixing of Expansion Board for Floor (water proof) 12mm thick including cost of required accessories @ suitable Interval as directed by the departmental officers.	Special		1 m ² (One square metre)	
16	78.00 Rm. (Seventy eight Running metre)	Supplying and Fixing of PVC Water bar 150mm with single bulb including cost of required accessories as directed by the departmental officers Two layer	Special		1 Rm. (One running metre)	
17	61.00 Rm. (Sixty one running metre)	Supplying and fixing in position of seepage pipes of 75 mm dia PVC pipe with standing working pressure of 6 Kg/cm2 required lengths with required filter media (excluding the cost of filter media) for abutment and wings including cost and conveyance of all materials to work site and labour charges for fixing etc., complete complying with standard specification as directed by the departmental officers.			1 Rm. (One running metre)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B. P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
18	400.00 Hrs. (Four hundred hours)	Dewatering using 5HP pumpset including Hire charges of machineries fuel charges and operating personal including shifting the pumpset wherever necessary etc., complete as directed by departmental officers.			1 Hr. (One hour)	
19	8027.10 m ³ (Eight thousand and twenty seven point one zero cubic metre)	Earth work in all soils except medium rock/hard rock requiring blasting and conveying for formation of bund with a lead of 2 Km MR deploying earth moving machinery and tippers including benching, formation of bunds, breaking clods, sectioning and consolidating each layer with Power roller etc., complete complying with standard specification as directed by the departmental officers.	23 & 24		1 m ³ (One cubic metre)	
20	65.00 m ³ (Sixty five cubic metre)	Rough stone dry packing using new stones for apron , revetment, upstream and downstream return walls including cost of Rough stones, Conveyance and labour charges etc., complete as per standard specification and as directed by the departmental officers.			1 m ³ (One cubic metre)	
21	37500.00 m ³ (Thirty seven thousand and five hundred cubic metre)	Earth work in all soils except hard rock requiring blasting and conveying for formation of bund with lead of 0 to 100 metre deploying earth moving machinery and tippers including benching, formation of bunds, breaking clods, sectioning et., complete.	23 & 24		1 m ³ (One cubic metre)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B. P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
22	41870.00 m ³ (Forty one thousand eight hundred and seventy cubic metre)	Earth work excavation deploying earth moving machinery for desilting channel having a width of more than 10m and forming bund on either sides and depositing the earth on banks including jungle clearance etc., complete complying with standard specification and as directed by the departmental officers.	23 & 24		1 m ³ (One cubic metre)	
23	2.00 MT (Two metric tonne)	Design, fabrication, supply, erection and commissioning of embedded parts (with top seal seat) consisting of sill beam, wheel tracks, seal seats, guide rails, groove lining upto top etc., with all accessories for vertical lift roller gate for canal escape / regulator including cost of all materials, machinery, labour, cutting, aligning, anchoring, welding, finishing, cleaning, applying one coat of zinc rich epoxy primer and four coats of cold applied coal tar epoxy paint etc., complete as per specifications and approved drawings with lead upto 1 km and all lifts for structural steel components and all leads and lifts including packing / forwarding charges for other materials Size of Vent: 1.00m x 1.20m L=1.00+0.50=1.50m H=1.20+0.20=1.40 m h= 32.530 - 30.000=2.53m Note:1. Wt of 1 set of embedded parts in tonnes =0.1332 x (L² x H x h) ^{0.659} (L) is length = Clear vent width in m + 0.50m (H) is height of gate in m = Clear vent height in m + 0.20m (h) is head of water above sill of gate in m = FSL - Sill level			1 MT (One metric tonne)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B. P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
24	1.340 MT (One point three four zero metric tonne)	Design, fabrication, supply, erection, testing and commissioning of fixed wheel type vertical lift gate (with top seal) consisting of skin plate, stiffeners, horizontal and vertical girders, wheels, guide rollers, rubber seals etc., with all accessories for canal escape / regulator vent including cost of all materials, machinery, labour, cutting, aligning, welding, finishing, cleaning, applying one coat of zinc rich epoxy primer and three coats of cold applied coal tar epoxy paint, seal fixing etc., complete as per specifications and approved drawings with lead upto 1 km and all lifts for structural steel components and all leads and lifts including packing / forwarding charges for other materials. Size of Vent: 0.90m x 0.45m L=0.90+0.50=1.40m H=0.45+0.20=0.65 m h= 3.350+0.900=4.25m Note:1. Wt of 1 gate in tonnes =0.0888 x (L² x H x h) 0.659 (L) is length = Clear vent width in m + 0.50m (H) is height of gate in m = Clear vent height in m + 0.20m (h) is head of water above sill of gate in m = FSL – Sill level			1 MT (One metric tonne)	

SI. No.	Approximate quantity in figures and in words.	Description of Work	T.N.B. P/ SS. No.	Rate Both in figures and in Words	Unit of calculation in figures and in words.	Amount Rs. P.
25	1.20 MT (One point two zero metric tonne)	Design, fabrication, supply, erection, testing and commissioning of adequate capacity screw type hoist consisting of supporting structure, platform, railing, ladder etc., with all accessories for operating canal escape / regulator gate including cost of all materials, machinery, labour, cutting, aligning, anchoring, welding, finishing, cleaning, greasing, applying two coats of zinc chromate red oxide primer and three coats of approved synthetic enamel paint etc., complete as per specifications and approved drawings with lead upto 1 km and all lifts for structural steel components and all leads and lifts including packing / forwarding charges for other materials.			1 MT (One metric tonne)	
26	3.870 MT (Three point eight seven zero metric tonne)	Conveyance charges for Structural Steel Portion from Salem Steel Plant (SAIL) to Sillathur Village with a lead of 215 Km etc., complete as directed by departmental officers.			1 MT (One metric tonne)	
		Total				
		GST @ 12%				
		Grand Total				

Total Items: 26 (Twenty six items only)

Contractor

Superintending Engineer,WRD., Lower Cauvery Basin Circle, Thanjavur.

SCHEDULE - 'B'

LIST OF DRAWINGS

SUPPLEMENTAL LIST.

Note: All drawings to be signed by the contactor as well as the officer entering into the contract. As referred to in the specifications including the General Conditions to the Contract of Tamil Nadu Building Practice.

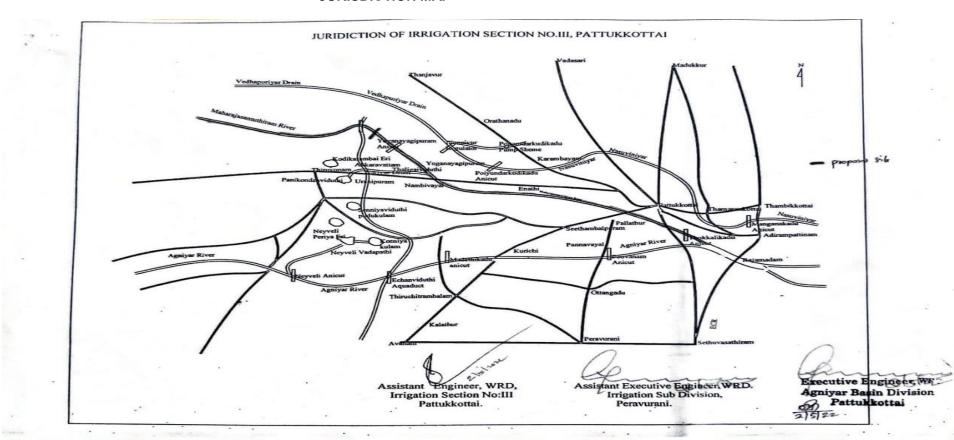
SI. No	Drawing Number	Description	Remarks
1	2	3	
1	1	Jurisdiction Map	
2	2	Sectional Plan	

Contractor

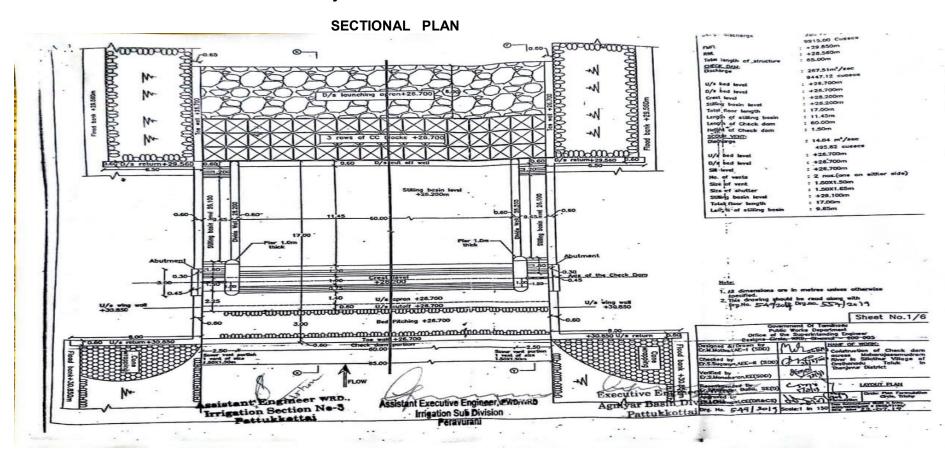
Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

Name of Work: Construction of Check Dam across Maharajasamudram River in Sillathur Village of Orathanadu Taluk in Thanjavur District.

JURISDICTION MAP



Name of Work: Construction of Check Dam across Maharajasamudram River in Sillathur Village of Orathanadu Taluk in Thanjavur District.



SCHEDULE - 'C'

List the specifications for the various items of works supplement those described in Schedule – 'A' by Standard Specification numbers

1. The contractor shall employ the following Technical Staff supervising the work and shall 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 demand special attention e.g. Reinforced Cement Concrete work, etc.

Name and members of the Technical staff to be employed	Qualifications	Experience
1	2	3

GENERAL CONDITIONS (PART – 1)

- The work shall be carried out in strict accordance with Tamil Nadu 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.

- 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.
- 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 inthe 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 over lap 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.

h. Use of pozzalona cement on works

Ordinary Portland cement confirming to I.S. 269- 1989 shall be used for masonry work. Portland Pozzalona cement confirming 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.

Scale and Qualification for Employment of Technical Assistant.

SI. No.	Value of Contract	Qualification and number of Technical Assistants to be employed
1	2	3
1	Upto Rs.1.00 lakh	No Technical Assistant need be employed. If situation and nature of work warrants, iii) A Diploma holder in Civil Engineering. Or iv) A retired Junior Engineer may be employed.
2	From Rs.1.00 lakh upto Rs.5.00 lakhs	iii) One Diploma holder in Civil Engineering. Or iv) Not less than one retired Junior Engineer.
3	From Rs.5.00 lakhs upto Rs.10.00 lakhs	v) One B.E. (Civil) Or vi) Equivalent degree holder Or vii) Not less than one retired Assistant Executive Engineer / Assistant Divisional Engineer. Or viii) One Diploma holder with three years experience

4	From Rs10.00 lakhs upto Rs.25.00 lakhs	v) vi) vii)	One B.E., (Civil) with 3 years experience plus one diploma holder in Civil Engineering. Or Equivalent degree holder with 3 years experience plus one diploma holder in Civil Engineering Or Not less than one retired Assistant Executive Engineer / Assistant Divisional Engineer plus one diploma holder in Civil Engineering. Or Two diploma holders in Civil Engineering with 3 and
_	F D-05 00 I-11	:\	5 years experience respectively.
5	From Rs25.00 lakhs upto Rs.50.00 lakhs	vi)	One B.E., (Civil) with 3 years experience plus two diploma holders in Civil Engineering. Or
		vii)	One B.E., (Civil) with 3 years experience plus two retired Junior Engineers. Or
		viii)	Equivalent degree holder with 3 years experience plus two diploma holders in Civil Engineering / two retired Junior Engineers. Or
		ix)	One retired Assistant Executive Engineer / Assistant Divisional Engineer plus two diploma holders in Civil Engineering. Or
		x)	One retired Assistant Executive Engineer / Assistant Divisional Engineer plus two retired Junior Engineers.
6	Above Rs.50.00 Lakhs	nature the 1	e examined in individual cases depending upon the e of work and the technical skill involved and defined in ender Notice regarding the number of qualified cal personnel to be employed by the contractor.)

If the tenderer who is not professionally qualified fails to employ Technical men as indicated above, fine shall be levied as follows during the period of Non- employment of Technical men.

- a. Rs. 2000/- per month for Diploma holder
- b. Rs. 5000/- per month for Degree holder.

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.
- 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 quary 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.
- 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.

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.
- 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 **Executive Engineer**, **WRD.**, **Agniar Basin Division**, **Pattukkottai** 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.

Contractor

Superintending Engineer WRD, Lower Cauvery Basin Circle, Thanjavur.

GENERAL CONDITIONS (PART - II)

- 1. Period of Completion **15 (Fifteen)** months from date of Handing over of site
- 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.

- 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.
- 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.

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.

Insur	ance requirements are as und	der:	[13]
		Minimum Cover for	Maximum deductible
		Insurance	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:	Rs.1,00,000/- per person	Rs.500/- per person
	a) for other people;		per annum
	b) for Contractor's	Rs.1,00,000/- per person	Rs.60/- per person per
	Employees		annum

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 $2 \frac{1}{2}$ % 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.

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.

22. PRICE ADJUSTMENT CLAUSE

- (a) The full price adjustment including cement, steel, bitumen and Petroleum, Oil and Lubricants (POL) shall be applicable to the works with all other conditions remaining the same subject to amendment for Rule 14 (8) of Tamil Nadu Transparency in Tenders Rules, 2000 which needs to be issued.
- (i) Price adjustment clause will be applicable for select critical construction inputs namely cement, steel, bitumen and POL and that too for Capital / Plan works only. No price adjustments will applicable for repairs and maintenance works.
- (ii) Price adjustment will apply only when the fluctuation of rates exceeds by 3% compared to the estimate rates (RBI Index Price). Price adjustment shall be made for both increase and decrease in the cost of materials.
- (iii) Price variation will be calculated once in a quarter in respect of cement and steel as per the specified formula from the date of agreement upto the end of agreement period based on Wholesale Price Indices of Reserve Bank of India. The quarter would be reckoned with reference to the quarter of the calendar year in which the agreement is signed, for the purpose of calculation of price adjustment.
- (iv) The price adjustment shall be calculate only on the departmental estimated cost of the work.

- (v) In respect of bitumen and POL, it may be considered on pass through basis with payment of actual rates / price at the rates charged by Indian Oil corporation.
- (c) All works for which price escalation is contemplated must have milestones fixed in physical terms and have a pre fixed timeline for usage of inputs which would clearly stipulate the nature and quantum of cement, steel and other inputs which would be utilized for the work in each time period between two milestones. Escalation will be given for only those quantities which would have been used had the contractor stuck to this original timeline. However, if the contractor does a certain quantity of the work in the third quarter which he should have done in the second quarter, he can still claim escalation on that quantity at the rates as applicable in the second quarter.
- (d) Fine will be imposed on the contractor for the lapses / shortfall in achieving the rate of progress as per existing schedule as per clause 57 general conditions of contract.
- (e) The price adjustment mechanism will cease to operate for value of work executed beyond the agreement period. But agreement period shall include the "actual period" for which the work was "suspended officially" and extension of time permitted for any valid reasons such as, war, natural calamities, like flood, earthquake and other risks arising out of acts of God during the agreement period; work delayed due to the land acquisition process; change in design, change in scope of work, etc., which is given in writing by the Tender Calling Officer of the respective work.
 - (f) Price variation will be operated by the respective Executive Engineers.

The formula(e) for adjustment of prices are:

R = Value of Contract.

Adjustment for labour component

Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

 $L = 0.85 \times P1/100 \times R \times (Li-Lo)/Lo$

- V L = increase or decrease in the cost of work due to labour shall be paid in accordance with the rates for local labour.
- Lo = the average consumer price index for industrial workers for Trichy center for the quarter preceding the date of opining of Bids as published by Labour Bureau, ministry of Labour, Government of India.
- Li = The average consumer price index for industrial workers for Trichy center for the quarter under consideration as published by Labour Bureau, Ministry of Labour, Government of India.
- Pi = Percentage of Labour component of the work.

Adjustment for cement component

(ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula.

$$V_c = 0.85 \text{ x P}_c/100 \text{ x R x } (C_i - C_o)/C_o$$

- V_c = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for cement
- C_o = The all India average wholesale price index for cement for the quarter preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi
- C_i = The all India average wholesale price index for cement for the quarter under consideration as published by Ministry of Industrial Development, Government of India, New Delhi
- P_c = Percentage of cement component of the work.

Contractor

Adjustment for steel component

(iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s/100 \times R \times (S_i - S_o)/S_o$$

V_s = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for steel

- S_o = The all India average wholesale price index for steel (Bars and Rods) for the quarter preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi
- S_i = The all India average wholesale price index for steel (Bars and Rods) for the quarter under consideration as published by Ministry of Industrial Development, New Delhi
- P_s = Percentage of steel component of the work

Note: For the application of this clause, index of Bars and Rods has been chosen to represent steel group.

Adjustment of Local materials

(iv) Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula:

$$V_m = 0.85 \times P_m/100 \times R \times (M_i - M_o)/M_o$$

- V_m = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.
- M_o = The all India average wholesale price index (all commodities) for the quarter preceding the date of opening of Bids, as published by the Ministry of Industrial Development, Government of India, New Delhi.
- M_i = The all India average wholesale price index (all commodities) for the quarter under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.
- P_m = Percentage of local material component (other than cement, steel, bitumen and POL) of the work.

The following percentages will govern the price adjustment for the entire contract:

Total	100%
5.POL	16%
4.Other materials - P _m	26%
3.Steel - P _S	7%
2.Cement – P _C	19%
1.Labour – P₁	32%

(In respect of bitumen and POL it may be considered on 'Pass through' basis with payment of actual rates / price at the rates charged by Indian Oil corporation).

23. Bonus for advance completion of work

Any work completed in advance by not less than 10% of agreement period will be considered and bonus of 1% on the value of actual quantum of works executed at tendered rate will be paid.

Contractor

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

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.

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.
- 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).
- 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.
- 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.

3. The rates for fabricatioin 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 rust, 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.

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

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 upto a width of 60 cms, bond stones running the wall shall be provided at an interval of 1.80 metres 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 premeasurement 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.
- The removal of old stone revetment should be stacked for premeasurements
 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 premeasurements without any extra claim.

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.
- 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 through out 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 contactor 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.

- 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.

Contractor

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

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

C. Every water supply storage shall be at a distance of not less than 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 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 atleast four times daily and atleast twice during the working hours, and kept in strictly sanitary conditions. The receptacles shall be tarred inside and outside atleast once a year.

The excreta from the latrines shall be disposed off at the contractor's expense, in outway 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.

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 aaya 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 atleast one hut and one aaya to lookafter 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 metres clear space between sheds and 9 metres clear space between rows if conditions permit. The work people's camp shall be laid out in units of 400 persons, each, each unit to have a space of 12 metres alround.

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.

- b) Every working platform and every gangway shall have adequate width and every working platform gangway working place and stairway shall be fenced.
- 4. 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.
- 5. 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 shakle 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.

- 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 pully 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 of 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 claimbing hock, shackle swivel and pully 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 lost 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.

- 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.
- 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.
- 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

- (i) 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 Practioner 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.
- 7. 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.
- 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.

Contractor

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.

MILE STONE

Name of Work: Construction of a Check dam across Maharajasamudram River in Sillathur Village of Orathanadu Taluk in Thanjavur District.

The following rate of progress and Proportionate value of work done from time as well be indicated by the Executive enginner's certificate of the value of work done will be required Date of commencement of this programme will be the date of which the site is handed over to the contractor

3	2	1				SI.No
Mile Stone III	Mile Stone II	Mile Stone I	Units	Total quantity		Mile stone
ı	1	80000.00	M^2	80000.00	1	Clearing Scrub Jungle
	2150.00	3045.00	M_3	5195.00	2	Ew excavation SS20B
ı	108.00	100.00	M^3	208.00	3	Sand Filling
750.00	750.00	510.00	M^2	2010.00	4	without strutting
	280.00	860.00	M^2	1140.00	5	with strutting
	75.00	70.00	M_3	145.00	6	PCC (1:3:6)
186.00	190.00		M^3	376.00	7	PCC1:2:4 (M-15)20mm
680.00	00.009	780.00		2060.00	8	PCC 1:2:4 graded
115.00	150.00		M_3	265.00	9	PCC - M - 20 - 20mm
43.00	-	-	M³	43.00	10	RCC - M - 25 / 20mm
140.00	100.00	120.00	Qtl	360.00	11	Steel
125.00		1	M^3	125.00	12	Filling metal 40mm, 20mm, 63mm
31.00	1		\mathbb{Z}_3	31.00	13	Filling of Gravel
738.00		-	M³	738.00	14	Loose Boulders
65.00	•		M^3	65.00	15	Rough Stone
40.00	38.00		RM	78.00	16	PVC Water Bar
	10.00	15.00	M^2	25.00	17	Expension joints 12mm
30.00	32.00	•	M^2	62.00	18	Expension joints 20mm
1	200.00	200.00	Hr	400.00	19	Dewatering
31.00	30.00		RM	61.00	20	Weep Holes
2.000	-	-	MT	2.00	21	Shutter Embedded Parts
1.34	ı	1	M	1.34	22	Shutter wheel type vertical lift gate
1.20		1	M	1.20	23	Shutter adequate capacity screw type hoist
ı	3777.10	4250.00	M^3	8027.10	24	Conveying for formation of bund Lead 2Km
11140.00	9580.00	16780.00	$ abla_3 $	37500.00	25	Conveying for formation of bund lead 0 to 100m
1	31980.00	9890.00	\mathbb{Z}_3	41870.00	26	Desilting having more than 10 m

Note: Liquidated damages will be imposed at the rate of 0.05% per day on the short fall in achievement mile stone physical programme relevant - financial commitment at the end of each milestone. Total Liquidate damages should be limited to 5% value of completed work.

Superintending Engineer, WRD, Lower Cauvery Basin Circle, Thanjavur.