

TAMILNADU WATER SUPPLY AND DRAINAGE BOARD



**TENDER DOCUMENT**

NAME OF WORK:-	<b>Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well -II Unit -2 at Edaikudi under Vedaranyam CWSS.</b>
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Last date for submission of tender: Up to 3:00 pm on **30.05.2022**

Office of the  
EXECUTIVE ENGINEER,TWAD BOARD,  
RWS DIVISION,THIRUVARUR.

## TAMILNADU WATER SUPPLY AND DRAINAGE BOARD

**TENDER DOCUMENTS**

## FOR MAINTENANCE WORKS ON TURNKEY BASIS

1. Short term Tender Notice No. : **01/F.VCWSS/R&D/DB/2022/Dt. 16.05.2022.**
2. Name of work : **Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well -II Unit -2 at Edaikudi under Vedaranyam CWSS.**
3. Eligible class of contractor : **Class III and above contractor registered in TWAD Board/any other state or central Govt. Dept/ Undertakings.**
4. Amount of EMD : **Rs.20,000/-(Rupees Twenty Thousands only) in favour of the Executive Engineer, TWAD Board, RWS Division,Thiruvarur.**
5. Last Date for submission of Tender : **30.05.2022 upto 03.00 PM**
6. Date and time of opening of tender : **30.05.2022 at 03.30 PM**
7. Tender should be valid for 60/90/120 days. : **60 days.**

CONTRACTOR

EXECUTIVE ENGINEER

### **PERCENTAGE TENDER SYSTEM**

In Tender Schedule 'A' the current Estimate rates or all individual item of work on the total value of work put to tender are given by the Board.

The tenderers are requested to quote the percentage of excess/less over the estimate rate for the over all works at which they are willing to execute the work.

The tenderers are requested to quote the percentage excess / less both in figures and words.

**LETTER OF CONSENT**

“I agree to abide by all the ‘STANDARD CONTRACT TERMS AND CONDITIONS’ of  
TWAD Board notified by the ..... Executive Engineer, TWAD Board, RWS Division,  
Thiruvarur

In letter No.....

Which I have read and understood’

Signature of Contractor.

CONTRACTOR

EXECUTIVE ENGINEER

## TAMILNADU WATER SUPPLY AND DRAINAGE BOARD

## LETTER OF TENDER

To

Dated:

The Executive Engineer,  
TWAD Board,  
RWS Division,  
Thiruvarur.  
Sir,

1. I/We do hereby tender and if this tender be accepted undertake to execute the following works via

as shown in the drawings and described in the specifications deposited in the office of the Executive Engineer, TWAD Board, RWS Division, Thiruvarur with such variations by way of alterations or additions to and omission from the said works and methods of payment as are provided for on the "Conditions of Contract" at % Excess/Less over the department value of Rs.....(Rupees.....

.....) or such other sums as may be arrived at under the clause of the Standard contract terms and conditions of TWAD Board relating to payment by final measurements at unit prices.

2. I/We have also quoted the tender premium in the bill of quantities (Schedule A annexed) in words and figures for which I/We agree to execute the work and receive payment on measured quantities as per the General conditions to the contract.

3. I/We do hereby distinctly and expressly declare and acknowledge that before the submission of my/our tender. I/We have carefully followed the instructions, in the tender and have read, the Tamilnadu Building Practice the general conditions to contract there in and the standard contract terms and conditions of TWAD Board and the I/We have made such examination of the contract documents and of the plan, 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 same and the requirements, covenants, stipulations and restrictions contained in the contract and in the said plans and specifications and distinctly agree that I/We will not thereafter make any claim or demand upon the TWAD Board upon or arising out of any alleged misunderstanding of Misconception of mistake on my/our own part of the said requirements, covenants, stipulations, restrictions and conditions.

4. I/We enclose and Income Tax verification Certificate and Sales Tax clearance Certificate.

5. \*\* (a) I/We enclose..... the sum of Rs.....(Rupees..... in the form of ..... as prescribed in the Tender Notice towards Earnest Money not to bear any interest.

\*\* (b) I/We hereby enclose the, proof of authority vide ..... exempting me/us from the payment of E.M.D.

Note: \*\* to be scored out if no applicable.

CONTRACTOR

EXECUTIVE ENGINEER

6. If my/our tender is not accepted, the E.M.D. shall be returned to me/us on my/our application when intimation is sent to me/us of rejection. If my/our tender is accepted I/we do hereby agree to produce the Security Deposit in the manner and form prescribed under clause 39 in the notice inviting tender (Section I) of standard contract terms and conditions, for the due fulfillment of contract. If upon intimation being given to me/us by the tender accepting authority of acceptance of tender (I/We fail to make the additional security deposit then, I/We agree to the forfeiture of the earnest money deposit. Any notice, required to be served on me/us hereunder shall be sufficient service on me/us if delivered to me/us personally or forwarded to me/us by post of (Registered or ordinary) or left at my/our address given herein, such notice shall, if sent by post be deemed to have been served on me/us at the time when in due course of post it would be delivered at the address to which it is sent.

7. I/We fully understand that on receipt of communications of acceptance of tender from the accepting authority, there emerges a valid contract between me/us and the TWAD Board represented by the officer accepting agreement and the standard contract terms and conditions of TWAD Board and Tender schedule issued by the Board, 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 of the tender notice, provided that, it shall be upon to the acceptance authority to insist on execution of my written agreement by tenderer, if administratively considered necessary or expedient.

8. I/we have also carefully examined the standard contract terms and conditions of the TWAD Board and Tamilnadu Building Practice in acknowledgement of being bound by all conditions of the clauses of the General conditions to the contract (Section II) and all specifications to the contract (Section II) and all specifications for items of works described by specification number in bill of quantities (Schedule – A).

9. In consideration of the payment of Rs..... (Rupees .....)  
or such other sums as may be arrived at under the clause of the General conditions to the contract relating to payment by final measurement at unit prices. I/we agree subject to said conditions to execute and complete the works shown upon the said drawing serially form No.1 to inclusive (Schedule B) and described in the specification (Schedule and to the extent of probable quantities shown (Schedule – A) with such variations by way of addition to or alterations, deductions from the said work and method of payment thereafter as are provided in the said conditions.

10. I/We agree that time shall be considered as the essence of the contract and commence the work as soon as this tender is accepted by the competent authority and to show progress as defined in the tabular statement (Schedule – B) “Rate of Supply”, subject nevertheless to the provisions for extension of time contained in clause 57 of the General conditions to the contract (Section – II).

11. I/We agree that upon the standard contract terms and conditions of this contract being fulfilled and performed to the satisfaction of the Executive Engineer, the security deposited by me/us as herein before recited or such portion thereof as I/We may be entitled to under the said conditions be paid back to me/us provided in clause 55 of the General conditions to the contract (Section-II).

12. The term Executive Engineer in the said condition shall mean the Executive Engineer, TWAD Board in charge of the Division having jurisdiction for the time being over the work, who shall be competent to exercise all the powers and privileges reserved therein favour of the TWAD Board who has been duly authorized by the TWAD Board.

CONTRACTOR

EXECUTIVE ENGINEER

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

Name of Technical Proposed to be employed	Qualification	Experience

14. I/We agree to Supply, delivery and erection for the replacement of electrode assembly for the disinfection equipment to the sites as specified in the Schedule – C.

15. I/We agree in the event of any dispute arising between the parties hereto in respect of any of the matter comprised in this contract, the same shall be settled by a competent court having jurisdiction, over the place where the contract is awarded and agreement is concluded and by no other court.

16. I/we undertake to assume full responsibility for the stability and soundness of the works/structures that will be executed by me/us per this contract.

17. I/we undertake and agree that I/We will not withdraw this tender during the period of validity of my/our tender as indicated in my/our tender and also during such extended period as agreed to by me/us such period to date from the last date by which tenders are due to be submitted and if I/We do so withdraw, I/we agree to forfeit the E.M.D. to the TWAD Board.

18. I/We understand that the Board is not bound to accept the lowest or any tender the Board may receive.

Dated this .....day of .....

Signature of Tender  
Address:

CONTRACTOR

EXECUTIVE ENGINEER

## INSTRUCTIONS TO BIDDERS

### 1. **Description of works:**

Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well -II Unit -2 at Edaikudi under Vedaranyam CWSS.

2. The Tenderer is required to examine carefully all instructions, conditions, forms, terms, specifications and drawing in the tender documents and in the TWAD Board manual for Rural Water Supply schemes – Detailed Standard specifications and General conditions of contract. Failure to comply with the requirements of bid will be at tenderers own risk. Tenders which are not responsive to the requirements of the tender documents are liable to be rejected.

### 3. **Qualification Criteria:**

The Bidder should a supplier in TWAD Board/any other state Central Government Department/undertaking. The Bidder who is not registered in the TWAD Board should get registered his name in the appropriate class of registration before conclusion of Agreement in the event of his tender is accepted.

**The contractor should have experience in supply , delivery , erection, commissioning and maintenance of V.T.pumpset or higher magnitude are eligible to tender for this work.**

### 4. **Method of Tendering:**

If the tender is made by an individual, the tender documents shall be signed by the individual with his name and address.

If the tender is made by a registered firm, it shall be signed by the Managing Partner with full name of the firm and address.

If the tender is made by a limited company or a limited corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the tender. Such limited company of corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.

5. The bids from the contractors/firms shall be accompanied by an attested copy of the valid Income Tax clearance Certificate and latest Sales Tax verification Certificate if the firm / contractor is not liable to the Sales Tax Department, the firm/contractor should produce a valid certificate issued by the competent authority to this effect.
6. The Bidder is expected to examine carefully all instructions, conditions, forms, terms specifications and drawing in the bidding documents. Failure to comply with the requirements of bid submission will be at bidder's own risk. Bids which are not substantively responsive to requirements of the bidding documents are liable to be rejected.

### 7. **Amendment of Bidding documents.**

At any time prior to the deadline for submission of bids, the employer may for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by the issuance of any addendum/corrigendum.

The Addendum/Corrigendum will be sent in writing or by cable to all prospective bidders who have purchased the bidding documents and will be binding upon them prospective bidders shall promptly acknowledge the receipt of the communication thereof to the Employer.

In order to afford prospective bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bids, the Employer may at his discretion, extend the deadline for the submission of the bids.

### 8. **Language of Bid.**



The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the bidder and the employer shall be written in English/Tamil Language.

**9. Document comprising the Bid.**

The bid to be prepared by the bidder shall comprise the entire documents in full, say the Tender documents and Appendix thereto, the Earnest Money Deposit, the Bill of Quantities and the rates thereof, the schedules of supplementary information, the information on eligibility criteria supported by relevant documentary evidence and any other material required to be completed and submitted in accordance with the instructions of Bidders embodied in these bidding documents. The forms, Bill of Quantities and schedules shall be used without exception subject to extension of the schedule in the same format.

**10. Prices.**

The prices offered by the contractor shall remain firm for the entire project period and no variation in price shall be allowed on any account.

**11. Bid Validity.**

The bids shall remain valid and open for acceptance for a period of 60/90/120 days after the date of opening of the price bids. In exceptional circumstances prior to expiry of the original validity period, the employer request the bidder for a specified extension of the period of validity. The request & responses thereto shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. The bidder may refuse the request without forfeiting his bid security. The bidder agreeing of the request will not be required not permitted to modify his bid, but will be required nor permitted to modify his bid, but will be required to extend the validity of his bid security accordingly. The provisions regarding discharge and forfeiture of bid security shall continue to apply during the extended period bid validity.

**12. Earnest Money Deposit.**

The bidder shall furnish as part of his bid, and Earnest Money Deposit of **Rs.20.000/- (Rupees Twenty Thousands only)** in any one of the following forms duly pledged or drawn in favour of the Executive Engineer, TWAD Board, RWS Division, Thiruvavur.

- a. Demand Draft.
- b. Deposit at call receipts of scheduled bank.
- c. Government Security and National Saving Certificate.
- d. 10 years defence deposits certificate
- e. 12 years National defence certificate
- f. Post Office Saving bank deposits.
- g. Fixed deposit receipts from scheduled Bank.

Any Bid not accompanied by an acceptable form of Earnest Money Deposit will be rejected by the Engineer as non responsive.

The Earnest Money Deposit of unsuccessful bidders will be returned without any interest within 15 days after a decision is taken on the tender.

**13. Signing of Bids.**

The original bid shall be filled by typing or by writing in indelible ink and shall be signed by the authorized signatory to bind the bidder to the contract. Proof of authorisation shall be furnished in the form of Power of Attorney duly signed executed and this should accompany the bid. All pages of the bid shall be signed and wherever entries or amendments as directed by the Employer are made, they should be properly attested by the signatory to the bid. The complete bid shall be free of alterations, interlineations or erasures, except those that were instructed to be carried out by the Employer. In case, necessity arose to correct the errors committed by the bidder, the same shall be properly attested by the signatory to the bid.

Each bidder is entitled to submit only one bid no bidder will have the option of participating more than one bid for this contract.

**14. The Tender shall be received by the Executive Engineer, at his office at not latter than 3.00 pm on 30.05.2022.**

The Executive Engineer may, at his discretion, extend the deadline for submission of bids by issuing an amendment in accordance with clause 6 above, in which case all rights and obligations of the Executive Engineer and the Bidders and the Bidders previously subject to the original deadline shall thereafter be subject to the original deadline shall thereafter be subject to the new deadline as extended.

**15. Mode of submission of Bid Documents.**

The bid documents are to be delivered either by hand or by registered mail in the following address before the expiry of the deadline fixed for submission of bid documents. The Executive Engineer, TWAD Board, RWS Division, Thiruvarur. Under no circumstances shall be responsible for the delay or loss or damage to the Bid Documents in transit.

**16. Late Bids.**

Any bids received by the Executive Engineer, after the deadline for submission of bids prescribed in accordance with clause 13 above, will not be considered and the same will be returned to the Bidder unopened.

**17. Bid Opening.**

The tender will be opened by the Executive Engineer at **3.30 p.m. on 30.05.2022** in the premises of the office of the Executive Engineer, TWAD Board, RWS Division, Thiruvarur. The bidders or their authorized representative desirous of attending opening of the bids may do so with proper authorization to represent.

The Engineer will examine the bids to determine whether the documents are complete. Whether the requisite Earnest Money Deposit has been remitted to the required value and in the manner prescribed whether the documents have been properly signed/attested and ascertain whether the bids are generally in order.

During the opening of bids, the Executive Engineer will announce the names of the bidders, written notification of bid modifications if any, the compliance with reference to the remittance of Earnest Money Deposit and such other details as the Employer any consider appropriate.

**18. Clarification of Bids.**

For any clarifications in the bid and for negotiations the bidder shall attend the office of the Executive Engineer, TWAD Board, RWS Division, Thiruvarur. Whenever he is called upon to do so.

**19. Responsiveness of the Bids.**

The bids shall be treated as substantively responsive based on the satisfaction of the required capacity, capability and financial resources. For this purpose, the bid should conform to all terms, conditions and specification of the bidding documents without material deviation or reservation.

The Executive Engineer reserves the right to determine and evaluate the bids with regard to their response substantively.

If a bid in the opinion of the Executive Engineer is found to be substantially not responsive, the Executive Engineer reserves the right to reject that bid and may not subsequently by made responsive by the bidder by carrying out corrections or withdrawal of the non/conforming deviation or reservation. However, the decision of the employer shall be final and binding in all these matters.

**20. Evaluation and comparison of Bids.**

The Executive Engineer will evaluate and compare only the bids which are determined to be substantively responsive with reference to the requirements and parameters fixed for qualification.

The Executive Engineer is addition to the prices offered by the bidders in the price bid, will take into account the arithmetic errors corrected as defined in clause 18 above.

**21. Right to accept or reject the Bids.**

The Executive Engineer reserves the right to accept or reject any or all the bids without assigning any reasons therefore. Under such circumstances, the Executive Engineer will neither be under any obligation to inform the bidder or the bidders of the grounds for the action of the Executive Engineer nor will be responsible for any liability incurred by the bidder on this account.

**22. Notification of Award.**

The Engineer will promptly inform the successful bidder of the award of the contract before the expiry of the validity period and in the case of extended periods, before the expiry of the extended periods. The award of contract will be in writing and in the event of award of contract being informed through cable, the same shall be confirmed through a written communication by the Executive Engineer. The award of contract shall be in the form of work order and shall bear the details of prices at which the Executive Engineer has accepted the works to be executed. The notification of the award will constitute the formation of the contract.

**23. Security Deposit and Agreement.**

The successful bidder on getting the work order from the Executive Engineer shall remit the **Security Deposit at 2%** of the value of contract in the form of NSC/Post Office Savings Deposit A/c. Pledged in favour of the Executive Engineer, TWAD Board, RWS Division, Thiruvavur within 15 days from the date of work order and promptly enter into an agreement with the Executive Engineer in the forms specified for this purpose. The agreement should be executed within 15 days from the date of work order in the non-judicial stamp paper of value not less than Rs. 100/- purchased in the name of the contract at his cost. The remittance of the required security Deposit in the proper form and the conclusion of agreement shall constitute the formal fulfillment of the contract.

- i) For tenders with any plus Percentage and up to minus 5 percentage of department value, 2 % of contract value.
- ii) For tenders with minus 5 Percentage and up to minus 15 percentage of department value, 4 % of contract value.
- iii) For tenders with more than minus 15 Percentage of department value, 5 % of contract value.

, in the form of NSC/Post Office Savings Deposit Account in favour of the Executive Engineer, TWAD Board, RWS Division, Thiruvavur.

**24. Forfeiture of Earnest Money Deposit.**

In the event of the successful bidder, upon receipt of work order should respond with the remittance of Security Deposit and execution of the agreement within 15 days from the date of work order, failure of which will be liable for the forfeiture of the Earnest Money Deposit remitted by the bidder along with the bid documents.

SCHEDULE - 'B'

DRAWING

<b>Name of work:</b>	Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well -II Unit -2 at Edaikudi under Vedaranyam CWSS.
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Sl No	Description	Quantity to be supplied per month	No. of months	Total quantity to be supplied

CONTRACTOR

EXECUTIVE ENGINEER

## SCHEDULE – B RATE OF PROGRESS

NAME OF WORK:	Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well - II Unit -2 at Edaikudi under Vedaranyam CWSS.
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The following will be rate of progress:

The fifteenth day from the date of issue of work order shall be reckoned as the start date of contract period, However the where the commencement of work is contingent upon the handing over the site by the board to the contractor, the work shall be reckoned from the date of handing over of the work site.

The Date of acceptance of agreement .....

The Date of handing over of site .....

The entire project must be completed in all respects within ...1 (one) months

The rate of progress for each component covered in the contract shall be as in the following schedule. Name of component	Period from commencement	Completion in Term of % age
Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well -II Unit -2 at Edaikudi under Vedaranyam CWSS.	6 months	100%

CONTRACTOR

EXECUTIVE ENGINEER

**SCHEDULE - ‘D’**  
**LIST OF LOCATIONS**

<b>Name of work</b>	Supply, Delivery ,erection and commissioning of Vertical Turbine pump 12500 LPM X 22 M head and 75.00 HP Motor for Collector well -II Unit -2 at Edaikudi under Vedaranyam CWSS.
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Collector well -II –Unit - 2 at Edaikudi

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**SCHEDULE - E**

**TECHNICAL STAFF TO BE EMPLOYED**

The contractor shall employ the following technical staff as per the prescribed rules.

Name of the member of technical staff to be employed

The details of value, scale and minimum qualification prescribed for the employment of technical staff, the rate of penalty for the failure on the part of the contractor to employ the technical staff for the work etc., are as follows.

Qualification :

Sl. No	Value of Contract	Scale & minimum Qualification prescribed for the employment of technical staff	Rate of penalty
1	Above Rs.1.00 lakh & upto Rs.5.00 lakhs	One Engineer with Diploma in Civil/Mechanical Engineering	Rs.2000/- per month
2	Above Rs.5.00 lakhs & upto Rs.10.00 lakhs	One Engineer with Degree in Civil/Mechanical Engineering with minimum one year experience	Rs.5000/- per month
3	Above Rs.10.00 lakhs & upto Rs. 25.00 lakhs	One Engineer with Degree in Civil/Mechanical Engineering with minimum three years experience	Rs.6000/-per month
4	Above Rs.25.00 lakhs	One Engineer with Degree in Civil/Mechanical Engineering with minimum three years experience and One Engineer with Diploma in Civil/ Mechanical Engineering	Rs.8000/- per month (Degree: Rs.6000/- Diploma: Rs.2000/-)

If the contractor fails to employ the technical staff to the departmental requirements, the contractor is liable to pay the penalty as indicated above during the period of such non employment of technical staff

CONTRACTOR

EXECUTIVE ENGINEER



### SCHEDULE – F PAYMENT SCHEDULE

<b>1. Infiltration Well</b>	
After casting curb	Upto 15%
After sinking of well upto 50% of the required depth	Upto 50%
After completion of entire works	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>2 Open well</b>	
(applicable only if the diameter of the well as atleast 5 metres)	
After completion upto average G.L.	Upto 50%
After completion of entire works	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>3 Pumping main</b>	
After supply at site	Upto 50%
After laying, jointing and testing of pipeline & after satisfactory commissioning of the entire length of main	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>4 Sump</b>	
After completion upto floor slab	Upto 35%
After completion upto roof slab	Upto 70%
After completion of the entire work including pipe connections etc.	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>5 Service Reservoir</b>	
After completion upto average G.L.	Upto 25%
After completion upto floor slab	Upto 75%
After completion of the entire work including pipe connections works and issue of water tightness certificate by the engineer in charge	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>6 Distribution System</b>	
After supply at site	Upto 50%
After laying, jointing and testing of pipeline & after satisfactory commissioning of the entire length of main	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>7 Valve pits and public fountains</b>	
After completion of entire works	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>8 Pumping Plant</b>	
After receipt of pump, motor, valves, cable control Panel, transformer at site	Upto 75%
After erection of pump, motor and accessories	Upto 85%
After commission of the pumping plant and testing	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>9 Pumprooms</b>	
After completion upto plinth level	Upto 35%
After completion upto roof slab	Upto 70%
After completion of entire works	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%
<b>10 Other items</b>	
On completion of the entire job	Upto 95%
After completion of the maintenance period of the scheme as a whole	Balance 5%

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EXECUTIVE ENGINEER

**11 EB connection and power supply**

The power supply connection from the TNEB has to be obtained by the contractor himself and the changes thereon shall be borne by the contractor. However necessary vouchers in original for the payment made to the TNEB shall be produced to the employer by the contractor which will be reimbursed by the employer.

**12 Maintenance**

After satisfactory maintenance of the project for 50% of the stipulated period	40%
After satisfactory maintenance of the project for the stipulated period	60%

Note: The period of maintenance for Scheme are as follows.

- |      |   |   |  |
|------|---|---|--|
| i)   | Individual power pump scheme                  | : | One month from the date of commissioning |
| ii)  | CWSS schemes upto a value of Rs.25.00 lakhs   | : | 2 months from the date of commissioning  |
| iii) | CWSS scheme of value more than Rs.25.00 lakhs | : | 3 months from the date of commissioning  |

During the maintenance period if any defect either on materials or work is noticed, the same should be attended to at free of cost by the contractor. No extra payment on this account will be made as separate item for "Maintenance of the scheme for the specified period" is included in the schedule. During the maintenance period, the TWAD Board will bear the electricity charges as this item is included in the Schedule A. Other charges such as repairs and renewals if any, consumable like oil for filling transformer, starters, alum/bleaching powder, diesel etc. have to be borne by the contractor. During the maintenance period the contractor has to train the staff to be employed by the Board.

**Note:**

- The percentage of payment mentioned above are with reference to the total value of each component as per the agreement entered into by the firm/Contractor except pumping main and Distribution system.
- The payment shall be made for each component as per the actual measurements upto the percentage mentioned above for the stage of progress of each component.
- Payment shall become eligible only for finished items of works in all respects.

**Deduction from Bills (Retention amount)**

- 5% of the value of every running bill shall be retained by the board as additional performance security (WHA)
- Deduction of income tax shall be made at the prevailing rates as may be specified by the income tax department from the bills from time to time.
- Deduction at source towards sales tax shall be made at 2% for civil works contract and 4% for all other work contract as per Tamilnadu General Sales Tax (Fifth Amendment) Act (Act No.15 of 1999).

## **SPECIAL CONDITIONS OF CONTRACT**

### **1. Royalty Charges.**

Except where otherwise stated, the contractor shall pay all seignorage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel clay or other materials required for the works. The contractor is not eligible for any payment in this regard from the Board.

### **2. Earthwork excavation.**

The bidder should carefully inspect the site to access the prevalence of differing and classifications and quote his rate for trench excavation that are likely to be encountered and no extra rate will be paid for excavation of trenches on account of any variations in the classification of soil met with during actual execution.

### **3. Penalty for the slow progress.**

If the contractor fails to maintain the rate of progress of the work as stipulated in Schedule C, the Engineer shall have the power to impose as penalty of such amount as he may deemed fit for every day that the work remains uncommenced or unfinished. However total amount of penalty imposed during the stipulated period of completion of the work shall not exceed 5% of the contract value.

The programme schedule drawn for the project entrusted on turnkey basis, should be kept up by the firm/contractor without any slippage. The Executive Engineer concerned shall monitor properly the execution of the work with reference to the programme schedule stipulated. The Executive Engineer on identification of any defective maintenance or any slippage on the programme schedule in any of the components shall issue a show cause notice either, by R.P.A.D. or through personal service to the firm/contractor for rectification of the defective construction/slippage in the programme schedule giving 15 days time for furnishing the reasons there for by the firm/contractor. In cases where the reasons adduced by the firm/contractor are not convincing, the penalty contemplated in the agreement condition shall be invoked.

If the delay is due to reasons beyond the control of the contractor, penalty need not be levied.

The penalty levied on the firm/contractor is however subject to modification at the direction of the next higher authority for valid reasons which are to be recorded.

### **4. Liquidated Damages.**

If the contractor fails to complete the work or part thereof within the stipulated completion period, he shall be liable to pay liquidated damages at Rs.500/- per day of delay for each incomplete part till the date of completion and handing over to the department. The amount of liquidated damages shall however be restricted to a maximum of 5% of the contract value. This is without prejudice to the right of the Engineer to terminate the contract treating time as essence of contract.

For imposing liquidated damages detailed show cause notice, shall be served on the defaulting firm/contractor either by RPAD or thro' personal service. The first notice shall be served allowing 15 days time to the firm/contractor for furnishing the reply by them. On expiry of 15 days time, from the date of first notice, the second notice shall be served allowing 7 days time to the firm/contractor for furnishing the reply by them. On expiry of 7 days time from the date of second notice, third notice shall be served allowing 3 days time to the firm/contractor for furnishing the reply by them. On receipt of the reply, it shall be verified by the Engineer in charge and the liquidated damages clause shall be invoked by issuing an explicit speaking order to the firm/contractor. Similarly the non receipt of any reply from the firm/contractor shall attract imposition of the liquidated damages clause automatically and in the case also, the liquidated damages shall be imposed by issuing an explicit speaking order to the firm/contractor.

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## **5. Execution of work by the contractor.**

The contractor shall execute the whole and every part of the work in the most substantial and work man like manner and both as regards materials and Labour every other respect in strict accordance with specification. The contractor shall also confirm exactly fully and faithfully to the designs drawing and instructions in writing relating to the work signed by the Engineer incharge. And completion of the entire work as per the specifications, drawing, terms and conditions of the contract and to the satisfaction of the Engineer incharge, the contractor shall obtain the completion certificate from the Executive Engineer.

## **6. Alteration to specification and Design.**

The Engineer incharge shall have the power to make any alteration or additions to the original specification, drawing, design and instruction that may appear to him to be necessary during the progress of work and the contractor shall bound to carry out the work in accordance with the instruction in this connection which may be given to him in writing signed by the Engineer incharge and such alteration shall not invalidate the contract and such works shall be carried out by the contractor on the same condition in all respects on which he agreed to do the main work. The rates for such additional works will be fixed by the Executive Engineer as per rules in force.

## **7. Contractor liability.**

During the period of 3 months from the date of completion as certified by the Executive Engineer, the said work is found to be defective in any manner whatsoever, the contractor shall forthwith, on receipt of notice in that behalf from the Executive Engineer duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defect specified there in strictly in accordance and in the manner prescribed and under the supervision of the Engineer in charge. In the event of the contractor failing or neglecting to carry out the rectification work within the period prescribed therefore, in the said notice, the Engineer incharge will get the same executed and carried out departmentally or by any other agency at the risk and cost of the contractor. The contractor shall forth with on demand, pay to the Board the amount of such costs, charges and expenses sustained or incurred by the Board of which the certificate of the Executive Engineer shall be final and binding on the contractor. If the contractor fails to pay the same on demand, the Board shall be entitled to deduct the same from any amount which may then be payable or become payable by the Board to the contractor, either in respect of the said work or any other work whatsoever or from the amount of security deposit.

## **8. With held amount in running bills.**

In addition to the initial security, and amount of 5% of the total value of each bill will be recovered as additional security deposit. The security deposit less any amount due to the Board and 2% out of the with held amount shall be released in final bill which shall be prepared after the works are completed in all respect and after completion of the maintenance period.

## **PAYMENTS AND RETENTION.**

a. In respect of pipe laying works and for work where water tightness and soundness are not watched for more than 6 months, payments will be made to the contractor under the certificates to be issued at reasonably frequent intervals by the Engineer of a sum equal to 95% of the value of the finished work done by the contractor as so certified and the balance of 5% will be withheld and retained as security for the due fulfillment of the contract. Under the certificate to be issued by the Engineer on the completion of entire work, the contractor will receive the final payment of all the money due or payable to him under or by virtue of contract except performance security and the retention amount equal to 2% of the total value of work done provided there is no recovery from the forfeiture by the contractor to be made. The amount withheld from the final bill will be retained under 'Deposits' and paid to the contractor together with security deposit after six months reckoned from the date of completion of work or as soon after the expiration of such period of six months as all defects shall have been made good according to true intent and meaning hereof whichever shall last happen.

In the event the final bill remains unpaid even after the period of six months aforesaid the Engineer shall refund the security deposit and also the withheld amount on a separate bill if requested for by the contractor in writing. No certificate of Engineer shall be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which it relates nor shall it relieve the contractor from his liability to make good defects as provided by the contract. The contractor when applying for a certificate shall prepare a sufficient detailed bill based on the original figures of quantities and rates in the contract schedule to the satisfaction of the Engineer to enable the Engineer to check the claims and issue the certificate. The certificate as to such of the claims mentioned in the application as are allowed by the Engineer shall be issued within (14) fourteen days of the application. No application for a certificate shall be made within (14) fourteen days of a previous application. The amount to be withheld in each bill is 5%.

(b.) In respect of building works/RCC reservoir and other works where water tightness and soundness are to be watched for more than 6 months notwithstanding the above clause, the retention amount of 2% from the final bill in respect of contract for original construction or original building works, construction of RCC reservoir work etc. will be retained by the Engineer and paid to the contractor after a period of 24 months of satisfactory performance of the entire civil works, or soon after the expiry of such periods of 24 months as all defects shall have been made good according to the true intent and the meaning hereof which ever shall be later and on production of an indemnity bond for the above amount for a further period of three years beyond the above said two years to ensure structural stability.

c. In addition to the withheld amount, 40% of the amount of each bill of the contract shall be deducted and will be retained till the date of receipt of certificate of water tightness from the Executive Engineer, TWAD Board. The whole of the above sum together with any recovery from the payments already made to the contractor as may be assessed by the Executive Engineer shall be forfeited to the TWAD Board if the RCC reservoir develops structural defects or leaks. The above recovery shall be exclusive of the amount deposited towards security deposit. The fact of carrying out water tightness test should be recorded in M.Book. The last part bill should be passed only after above certificate is issued. Further, the certificate of structural soundness is to be issued by the Executive Engineer after 6 months from the date of water tightness certificate for settlement of final bill. However the contractor shall be permitted to execute an indemnity bond in lieu of the recovery of 40% in each bill in prescribed form in stamp paper for a value of Rs. 22.50 towards water tightness and structural stability of the reservoir/water retaining structure. The period of guarantee required by the contract shall be two years from the date of completion and handing over (with filling of water upto maximum water leveling the case of service reservoir/OHT). If defects are noticed within the stipulated period of 24 months of satisfactory performance, the defects should be rectified by the contractor at his own cost and the performance period again shall be reckoned from the date of completion of the rectification of defects by the contractor. In the case of service reservoir/over head tanks and other water retaining structures during this period, structure under full working head of water shall show no sign of leakage. The test for water tightness should be arranged to be carried out and completed within 30 days from the date of intimation by the Engineer. The testing of the service reservoir/OHT and other water retaining structures should be done by the contractor at his own cost inclusive of all necessary equipment water etc. complete. The tenderer shall be solely responsible for the accuracy of the design and the details of the structure. The test for water tightness of the structure as well as materials of construction used shall be conducted in conformity with the standard specification as per I.S. 3370 (Part I) 1965 as amended from time to time and the other specifications as mentioned in the technical specifications schedule.

(d). Income Tax shall be deducted at two (2) percent of the gross amount of each bill or at the ruling rates fixed by the government of India from time to time.

(e). In the event of the death or insanity or insolvency or imprisonment of the contractor or where the contractor being a partnership firm becomes dissolved or being a corporation goes into liquidation voluntary or otherwise, the contractor may at the option of the Engineer, be terminated by notice in writing posted at the site of the works and all accepted and acceptable works shall forthwith be measured up and paid for at the rates provided in the contract schedule where such apply or otherwise, by the most recent schedule of rate approved by the competent authority to the person or person entitled to receive and given a discharge for the payment.

#### **9. Recovery of money payable to the TWAD Board.**

All losses, costs, damages and expenses and other money payable to the Board by the contractor under any stipulation in the contract, may be retained out of any money due or which may subsequently become due from the Board to the contractor under any contract or otherwise howsoever and in case such money then due or to become due to the contractor by the board shall be insufficient to pay such losses, costs, damages and other money payable to the TWAD Board by the contractor. It shall be lawful for the Engineer without any further consent on the part of the contractor, to sell or dispose of any or all the Government promissory notes for the securities deposited in the Board by the contractor as aforesaid and with and out of the proceeds of such sale, after payment of all expenses connected therewith or reimburse and pay to be Board all such losses, cost damages and expenses and other money payable to the contractor, and in case such proceeds of sale of the said government promissory notes or securities shall be insufficient for such purpose then and in that case it shall be lawful for the Board to recover the residue thereof if necessary by legal proceedings and or by resorting to revenue recovery act against the contractor.

#### **10. Foreclosure of works.**

After the award of contract, if at any time of Engineer for any reason whatsoever does not require the whole or any part of the works to be carried out, shall give notice to this effect in the contractor. The contractor shall not have any claim towards compensation or whatsoever, on account of any profit or advantage which he might have derived from the execution of such works.

#### **11. Risk Insurance.**

The contractor may take risk insurance at his cost against loss or damages to the construction and labour against unprecedented floods and other acts of god & accidents. The contractor will not be eligible for any payment by the Board on this account.

#### **12. Forfeiture of bid security (EMD)**

The Bid security shall be forfeited on the following grounds.

- a. In the case of bidder withdrawing or modifying his bid during the period of validity.
- b. In case of a successful bidder failing to furnish the prescribed performance security deposit within the stipulated time.
- c. In the case of a successful bidder failing to enter into agreement within the stipulated time.
- d. In the case of bidder serving the conditions after intimation of the acceptance of the bid.

#### **13. Forfeiture of Performance Security (security Deposit).**

In the case of contractor, after award of work, failing to carry out the work in accordance with the specifications, terms and conditions of the contract leading to termination of contract, the Performance security will be forfeited to the Board.

#### **14. Jurisdiction of Court.**

In the event of any dispute arising between parties here to in respect of any of the matter comprised in this contract, the same shall be settled by the competent court having jurisdiction over the place where contract is awarded and agreement is concluded and by no other court.

**15. FUND CONTRIBUTION FOR MANUAL WORKERS**

Towards contribution of fund for the benefit of manual workers employed in the construction works an amount equivalent to **one percent** of total estimated cost of the construction work proposed will be paid by the employer direct to the respective Welfare Board as per G.O. Ms.No. 295/Labour and Employment (12) Dept./dt.17.12.2013, subject to issue of amendments from time to time by the respective department of Govt.of Tamilnadu.

- 16.** Boy employee should not be allowed for any kind of works.

## General Conditions of Contract

### 1. Definitions

In the Contract (as hereinafter defined) the following words and expressions shall have its meanings hereby assigned to them, except where the context otherwise requires:

“Board” means the Tamil Nadu Water Supply and Drainage Board, a statutory body constituted under the Tamil Nadu Water Supply and Drainage Board Act 1971 having its office at No. 31, Kamarajar Salai, Chepauk, Chennai – 600 005 and any officer authorised to act on its behalf

“Employer” means the Tamil Nadu Water Supply and Drainage Board and shall include the officers duly authorised to act on its behalf

“Contractor” means the person or persons, firm or company whose tender has been accepted by the Employer and includes the authorised representatives, successors, heirs, executors, administrators

“Sub contractor” means any person or persons, firm or company named in the Contract as a Subcontractor for a part of the Works or any person or persons, firm or company to whom a part of the Works has been subcontracted with the consent of the Engineer and includes the authorised representatives, successors, heirs, executors, administrators of such Sub contractors

“Engineer” means the Executive Engineer or any other Engineer appointed from time to time by the Employer to act as Engineer for the purposes of the works brought under this contract.

“Engineer incharge means the Executive Engineer or any other Engineer authorised by him.”

“Engineer’s representative” means any resident Engineer or assistant Engineer or any clerk of works appointed from time to time by the employer or / the Engineer to perform duties set forth in respect of this contract.

“Contract” means the Invitation for Bids and amendment made thereof, Letter of Acceptance, the formal Agreement executed between the Employer and the Contractor together with the documents referred to therein, General Conditions of the Contract, Special Conditions, Specifications, Minutes of the pre Bid conference, Design, Drawings, Schedule of Rates and Prices, Bill of quantities, Rate of Progress etc. All these documents taken together shall be deemed to form one contract and shall be complementary to one another

“Turnkey Contract” means execution of the water supply and sewerage works including the supply and installation of all materials, machineries, equipments etc in accordance with specifications stipulated in the Bid Document and in conformity with the quality parameters laid down in relevant BIS, TNBP, Bid Documents etc and completing the entire works in all respects satisfactorily and commissioning within the stipulated period and maintaining the scheme for the specified period.

“Contract Price” means the sum stated in the Letter of Acceptance as payable to the contractor for the execution, completion and maintenance of the works, subject to such additions thereto or deductions therefrom as may be provided under this Contract and the remedying of any defects therein in accordance with the provisions of the contract

“Constructional Plant” means all appliances or things of whatsoever nature required in or about the execution, completion or maintenance of the works but does not include materials or other things included to form or forming part of the permanent works

“Works” shall include both permanent works and temporary works. ‘Permanent works’ means the works of permanent nature to be executed, completed and maintained (including Plant) in accordance with the contract. ‘Temporary works’ means all temporary works of every kind required in or about the execution, completion or maintenance of the works and remedying of the defects therein

“Specification” means the schedules, detailed designs, technical data, performance characteristics and all such particulars referred to in the bid/ contract and any modification thereof or addition thereto as may from time to time be furnished or approved by the Employer

“Drawings” means the drawings, calculations and technical information referred to in the specification and any modification of such drawings approved in writing by the Engineer and such other drawings, calculations and technical information as may from time to time be furnished or approved in writing by the Engineer

“Site” means the land and other places on, under, in or through which the Permanent Works and/ or Temporary Works are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the site

“Approved” means approval in writing including subsequent written confirmation of previous verbal approval

“Test” means such test or tests as are prescribed in the specifications or considered necessary by the Engineer

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“I.S.S.” means Indian Standard Specifications

“B.I.S.” means Bureau of Indian Standards

“TNBP” means Tamil Nadu Building Practice

“Day” means a calendar day (from midnight to midnight)

“Week” means seven consecutive days

“Month” means from the beginning date of a given date of a calendar month to the end of the preceding date of the next calendar month

“Quarter” means a period of three months reckoning from the 1<sup>st</sup> date of January, April, July and October and counted to the last date of March, June, September and December respectively

“Rupees” means Rupees in Indian Currency

“Bill of Quantities” means the priced and completed bill of quantities forming part of the tender

“Tender” means the Contractor’s priced offer to the Employer for the execution, completion and maintenance of the Works and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Acceptance

“Letter of Acceptance” means the formal acceptance by the Employer of the Tender

“Contract Agreement” means the contract agreement referred to in clause(...)

“Appendix to Tender” means the appendix comprised in the form of Tender annexed to these conditions

“Commencement Date” means the fifteenth day from the date of issue of work order handing over the site to the successful firm/ contractor, whichever is earlier and this shall be reckoned as the start date of the project/ Contract Period.

“Time of Completion” time for completing the execution of and passing the Tests on Completion of the Works or any Section or part thereof as stated in the Contract (or as extended under Clause(...)) calculated from the Commencement Date

“Maintenance” means the successful maintenance of the completed and commissioned project as a whole or in parts as the case may be for the stipulated period

“Joint Venture” means two or more firms/ contractors aspiring to take up the contract jointly with the lead partner and other partner/ partners possessing the required qualifications

## **2. Interpretation**

In interpretation of these Conditions of Contract, headings shall not be deemed part thereof or be taken into consideration. Words importing persons or parties shall include firms and corporations and any organisation having legal capacity. Words importing the singular only also include plural and vice versa where the context requires.

The Employer will provide instructions clarifying the queries about the contract

## **3. Authority of Engineer in Charge**

It shall be accepted that the authority of the Engineer in charge shall be an integral part of the contract in all matters regarding the quality of materials, workmanship, removal of improper work, interpretation of the contract drawings and specifications, mode and procedure of carrying out the works where the decision of the Engineer in charge shall be final and binding on the contractor. The Engineer in charge shall have absolute authority on all technical matters and payment considerations.

## **4. Sufficiency of Bid**

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the bid and of the rates and prices stated in the Bill of Quantities, all of which shall, except insofar as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, Plant or services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the Works and the remedying of any defects therein

## **5. Priority of Contract Documents**

The several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer who shall thereupon issue to the Contractor instructions thereon and in such event, unless otherwise provided in the Contract. The priority of the documents forming the Contract shall be as follows

- ♦ The Contract Agreement
- ♦ The Letter of Acceptance
- ♦ The Tender
- ♦ Conditions of the Contract
- ♦ Technical specifications
- ♦ Any other document forming part of the Contract

#### 6. **Secrecy of the Contract Documents**

The contractor shall treat all documents, correspondence, direction and orders concerning the contract as confidential and restricted in nature by the contractor and shall not divulge or allow access to these matters to any unauthorised person.

#### 7. **Instructions in Writing**

Instructions given by the Engineer or Engineer's Representative shall be in writing, provided that if for any reason, the Engineer or the Engineer's Representative considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Engineer or Engineer's Representative, whether before or after the carrying out of the instructions given by the Engineer or Engineer's Representative, shall be deemed to be an instruction.

#### 8. **Commencement of Works**

The Contractor shall commence preliminary works after the receipt by him of the LOA to this effect from the Engineer in charge. Thereafter, the contractor shall proceed with the Works with due expedition and without delay and in accordance with the programme schedule set out in the Contract

#### 9. **Reference Marks**

The basic centre lines, reference points and bench marks shall be fixed by the Engineer in charge of the works.

The contractor shall establish additional reference points and bench marks as may be necessary at his cost. The contractor shall remain responsible for the accuracy and sufficiency of the reference and benchmarks. The contractor shall take proper precautionary steps to ensure that the reference lines and bench marks established for the works are not disturbed and shall make good any damages caused.

#### 10. **Supervision**

The contractor shall provide all necessary superintendence during the execution of the works and thereafter as may be necessary for the proper fulfillment of the obligations under this contract. The contractor shall arrange for the deployment of proper qualified personnel at the site of work constantly, such supervising staff, apart from those separately set out as the requirements of the contract, shall be skilled and experienced technical assistants, foremen and others competent enough to produce proper supervision.

The contractor shall employ the technical staff as per the prescribed rules. The details of value, scale and minimum qualification prescribed for the employment of technical staff, the rate of penalty for the failure on the part of the contractor to employ the technical staff for the work etc are as follows :

Sl. No.	Value of Contract	Scale and minimum qualification prescribed for the employment of technical staff	Rate of penalty
1	Above Rs. 1.00 Lakh and upto Rs. 5.00 Lakhs	One LCE/DCE/LSE or retired JE / LSE (civil) of TWAD or other Engineering Department	Rs.2 000/ Per month
2	Above Rs. 5.00 Lakh and upto Rs. 10.00 Lakhs	One BE (Civil) or equivalent Engineering degree holder with at least one year experience or retired AEE of TWAD or other Engineering Department	Rs.5 000/ Per month
3	Above Rs. 10.00 Lakh and upto Rs. 25.00 Lakhs	One BE (civil) or equivalent Engineering degree holder with at least three years experience or retired AEE of TWAD or other Engineering Department in addition to one LCE/DCE/LSE holder	Rs. 7000/- per month (5000/-Degree Holder)+Rs.2000/- per month(Diploma Holder)
4	Above Rs. 25.00 Lakh.	One BE (civil) or equivalent Engineering degree holder with atleast three year experience or retired AEE of TWAD or other Engineering Department in addition to two LCE/DCE/LSE holders	Rs. 9000/- per month (5000/-Degree Holder)+Rs.2000/- per month(Diploma Holder)

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If the contractor fails to employ the technical staff to the departmental requirements, the contractor is liable to pay the penalty as indicated above during the period of such non employment of technical staff.

In the event of any staff of the contractor being non co-operative, negligent, incompetent or misconduct, the Engineer in charge shall have the liberty to object to the placement of such staff at the site or other place of works and will promptly issue notice in writing to the contractor for the removal of such staff members. It will be obligatory on the part of the contractor to remove/ change such persons in the larger interests of the works.

#### **11. Subletting of Contract**

Assignment of the contract is not permissible

Transfer of the contract is not permissible on any grounds

The contractor shall sublet any portion of the contract only with the written consent of the Engineer in charge. It should be clearly understood that any subletting shall in no way absolve the contractor of his responsibilities and obligations under this contract

#### **12. Specifications and Checks**

Stated dimensions in the drawings are to be taken for consideration and no measurements based on scaling of the drawings shall be considered. In case of discrepancy between the description of items in the schedule of quantities and the specifications, the later shall prevail. In case of the description, any work having not fully described or doubts prevail, the contractor shall forthwith write to the Engineer in charge and clarify himself before executing that portion of the work. However, this cannot be a cause for any delay in the progress and the contractor should take advance action in this regard ensuring timely completion of the works.

Before commencement of the work, it will be obligatory on the part of the contractor to furnish a detailed plan of action along with layouts showing the position of the construction plants and other facilities required and proposed to be provided for this contract.

The contractor shall execute the works true to alignment, grade and levels as set out in the drawings and as directed by the Engineer in charge from time to time. The Engineer in charge or his representative is at liberty to check the correctness of the works, the suitability of the materials used, design mix etc., The contractor will raise no objections for such checks and shall provide necessary labour and instruments to carry out such checks to the Engineer in charge as well as his representative and co-operate in the checks. However, such checks will not absolve the contractor of his responsibility of maintaining the accuracy of the work.

#### **13. Custody and Supply of Drawings and documents**

The drawings shall remain in the sole custody of the Engineer in charge, but two copies thereof shall be provided to the contractor free of charge. The contractor shall make at his own cost any further copies required by him. Unless it is strictly necessary for the purposes of the contract, the drawings, specifications and other documents provided by the Employer or the Engineer in charge shall not, without the consent of the Engineer in charge, be used or communicated to a third party by the contractor. One copy of the Drawings, provided to or supplied to the Contractor as aforesaid, shall be kept by the Contractor at the site and the same shall be made available for inspection and use by the Engineer and by any other person authorised by the Engineer

#### **14. Bill of Quantities**

The Bill of quantities shall contain items of the Works relating to each component of the scheme to be carried out by the Contractor

The Bill of Quantities will be used to calculate the Contract Price. The contractor shall be paid for the quantum of work done at the rate mentioned for each item in the Bill of quantities

#### **15. Change in the Quantities**

If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item/ items, the rates as in the agreement for the relevant items shall be paid as per the actual quantity

#### **16. Additional Items**

If additional items that are not contemplated in the contract are to be executed, the Engineer in charge will execute the works either through the main contractor/ firm or through any other agency. Payment for such works shall be made based on the rates derived by the Engineer in charge as per rules in force.

#### **17. Order Book**

An order book will be kept by the Officer in charge of the site (Junior Engineer/ Assistant Engineer) of the particular component of the works. Orders entered in this book by the Engineer in charge or any higher authority shall be held to have been formally communicated to the contractor/ firm. The Officer in charge of the site will sign each order as it is entered and will hand over the duplicate to the contractor/ firm or his agent, who shall sign the original in acknowledgement of having received the order.

#### **18. Independent Inspection**

The Engineer shall delegate inspection and testing of materials or Plant to an independent inspector/ Agency. Any such delegation shall be considered as prerogative of the Engineer. The inspection charges/fees shall be payable by the contractor.

In addition to third party inspection, wherever felt necessary, the engineer shall be empowered to test the PVC pipes for its quality such as specific gravity, diameter, thickness etc in the TWAD Board laboratory

**Pre-delivery inspection:**

The inspection may be done by any one of the TWAD Board Authorised inspecting agencies at their cost.

**19. Covering and Opening of Works**

No work shall be covered or put out of view without the approval of the engineer in charge. The contractor shall give due notice to the Engineer in charge whenever such works are ready for examination and the Engineer in charge within a reasonable period, arrange for the inspection and measuring of the work as may be necessary. No portions of the work shall be covered up without the consent of the Engineer in charge. The cost of opening any portion of the works that was covered without the consent of the Engineer in charge and the cost of covering thereafter shall be borne by the contractor

The contractor shall open the covered portion of the works for inspection by the Engineer in charge on a request and the inspection or examination shall be carried out promptly by the Engineer in charge. In the case of defects notified by the Engineer in charge, the contractor shall rectify the same as may be instructed by the Engineer in charge. All costs of opening, covering and rectification shall be on to the account of the contractor. Should the contractor refuse to open such portions of works, the Engineer in charge shall open such portions with other persons and inspect the part of the works as he may feel necessary. On inspection, the works being not in accordance with the requirements of the contract documents, the Engineer in charge shall carry out necessary rectification and the entire cost of opening, rectification and closing shall be on to the contractor's account

**22. Watching and Lighting**

The contractor/ firm shall at his expense shall provide at the site of works sufficient fencing, barricading, watching and lighting during day and night. The contractor/ firm shall in every respect conform to the police regulations in these matters and shall free and relieve the Board on all such matters. Should the contractor/ firm file/ neglect to do these arrangements, the same shall be carried out by the Engineer in charge and the costs thereof shall be recovered from the contractor/ firm.

**23. Measurement of Work**

The work will be measured by the site engineer (Junior Engineer/ Assistant Engineer) and recorded in the measurement book. The contractor/ firm will be at liberty to accompany the site engineer in order that they may agree on the measurements but should they neglect to do so, the measurements as recorded by the site engineer shall be taken as final and conclusive. The measurements of works will be recorded as prescribed in the TNBP and as amended from time to time.

**24. Tools and Plants**

All tools, plants and equipments required for this contract will be arranged by the Contractor at his own expense. The Contractor shall erect necessary construction plant as may be necessary and shall use such methods and appliances for the proper performance of all the operations connected with the work brought under the contract ensuring satisfactory quality of work and maintenance of the programme schedule. The non availability of any tool, plant or equipment shall not be relied upon as a reason for non functioning or slow progress

**25. Information and Data**

The information and data made available to the contractor in respect of the works and site conditions are only general and the contractor is advised to get himself fully acquainted with the nature of the location of the works and the surroundings, quarries, local conditions and such other aspects that are relevant to the works.

**26. Coexistence with other Contractors**

Where two or more contractors are engaged on work in the same vicinity, they shall work together harmoniously with the spirit of cooperation and accommodation. The contractor shall not disrupt or disturb the works or labour arrangements of the neighbouring contractors. In case of disputes and difficulties arising between the contractors in the execution of the respective works, the Engineer in charge shall interfere and give directions for the smooth functioning of the entire works and it shall be the bounden duty of the contractors to abide by these instructions

**27. General Responsibilities and Obligations of the Contractor**

The contractor shall, subject to the provisions of the contract, execute and maintain the works with proper care and diligence and provide all labour including the supervision thereof, materials, constructional plant and all other things, whether of a temporary or permanent nature required for such execution and maintenance.

The contractor shall take full responsibility for the adequacy, stability and safety of all site operation and methods of construction.

The contractor shall promptly inform the Employer and the Engineer in charge if any error omission, fault and other defects in the specification or design of the works which are identified at the time of reviewing the contract documents or during the execution for proper rectification thereof.

All notices, certificates connected with the work served by the employer relating to the contract shall be sent by post or by hand to the contractor's principal place of business as mentioned in the document or at other places as may be nominated by the contractor in writing for this purpose. Any change in the address of the contractor should be promptly intimated to the Employer in writing then and there.

The contractor shall visit the spots of work and ascertain the site conditions. The contractor shall satisfy himself of the conditions prevailing in the spots where the work is actually to be executed and its environs and the precise offered by him shall be treated as those which were worked out taking fully into consideration the prevailing site conditions, hydrological conditions, extent and nature of work to be executed, the material availability, etc., Any claim on this ground at a later date shall be summarily rejected.

However, during the execution of the works, if the contractor has to encounter artificial obstructions, which in his opinion could not have been reasonably foreseen, then the contractor shall write forthwith to the Engineer in charge of such obstruction and remedial measures needed. The Engineer in charge, if opined that the conditions cannot be possibly foreseen by an experienced contractor, he shall extend possible assistance to the contractor to overcome such obstructions. The opinion of the Engineer in charge shall be final and binding and the contractor is not entitled to advance these as reasons for any delay that may be caused to the completion of the project.

The contractor shall execute and maintain all works in accordance with the specification and to the satisfaction of the Employer. The contractor shall strictly adhere to the instructions and directions of the engineer in charge, whether included in the contract agreement or not but concerning the safe and proper execution of the works.

#### **28. Labour**

The contractor shall not employ any person who has not completed fifteen years of age in connection with the works under this contract

The contractor shall furnish the information on various categories of labour employed by him to the Engineer in charge in the form prescribed for this purpose

The contractor shall in respect of labour employed by him comply with or cause to be complied with the provisions of various labour laws, rules and regulations as applicable to them in regard to all matters provided therein and shall indemnify the Employer in respect of all claims that may be made against the Employer for non compliance thereof by the contractor.

Notwithstanding anything contained herein, the Employer reserves the right to take such action as may be deemed fit and proper for the compliance of various labour laws and recover the costs thereof from the contractor.

#### **29. Restriction of Working Hours**

Subject to any provisions contained in the Contract, none of the works shall, save as hereinafter provided, be carried on during the night or on locally recognised days of rest without the consent of the Engineer, except when work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer. Provided that the provisions of this clause shall not be applicable in the case of any work which is customary to carry out by multiple shifts

#### **30. Right of Way and Facilities**

The Contractor shall bear all costs and charges for special or temporary rights of way required by him in connection with access to site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for the purposes of the Works

#### **31. Removal of Improper Work, Material and Plant**

The contractor shall make his own arrangements for the procurement, supply and use of the construction materials and shall ensure that the materials either procured within the country or abroad conform to the relevant specifications set out in the bid documents. In case of alternatives being used, they should be of equal or higher quality than those specified subject to the review and written approval of the Engineer in charge. Differences between the standards specified and the proposed alternatives must be described in writing to the Engineer in charge at least 30 days in advance from the date on which the approval of the Engineer in charge is needed. The disapproval of the proposal by the Engineer in charge shall result in the contractor confining to the standards set forth in the contract documents. The contractor shall arrange for the inspection of the material at the manufacturing place or other places by the department personnel

All materials and workmanship shall be in accordance with the specifications set out in the contract document and as directed by the Engineer in charge and shall be subjected to tests by the Engineer in charge or his representative at the place of manufacture or at the site of work or places wherever felt necessary. The contractor shall provide all the assistance necessary including instruments, machines and materials that are normally required for carrying out the testing/ measuring the quality/ quantity of the materials and workmanship. Any material rejected after testing by the Engineer in charge or his representative will not be used on the works

The contractor shall without claiming any extra cost, shall arrange for the testing of materials and supervision of the works. The Engineer in charge or his authorised representative will have access at all times to the places of manufacture, storage to ascertain as to whether the manufacturing process wherever mentioned is in accordance with the drawings and specifications

The Engineer in charge shall have the right to order the removal of such materials which in his opinion are substandard stipulating a time limit for the removal of the same and replacement with quality material

Notwithstanding the previous tests of the materials by the Engineer in charge or his representative, if any portion of the work, in the opinion of the Engineer in charge is not in order, the contractor shall redo such work to the satisfaction of the Employer at no extra cost. In case of default on the part of the contractor in carrying out such orders, then the Employer shall have the right to carry out such works through some other persons and the expenses thereon or incidental thereto shall be recoverable from the contractor

### **32. Default of Contractor in Compliance**

In case of default on the part of the Contractor in carrying out such instruction within the time specified therein, if none, within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and all costs consequent thereon or incidental thereto shall after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and shall be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer

### **33. Default by Contractor**

If the contractor shall become bankrupt or have a receiving order made against him or shall present his petition in bankruptcy or shall make an arrangement with or assignment in favour of his creditors or shall agree to carry out the contract under a committee of inspection of his creditors, or being a corporation shall go into liquidation (other than a voluntary liquidation for the purpose of amalgamation or reconstruction), or if the contractor shall assign the contract, without the consent in writing of the employer first obtained, or shall have an execution levied on his goods, or if the engineer in charge shall certify in writing to the employer that in his opinion, the contractor.

- a) Has abandoned the contract, or
- b) Without reasonable excuse has failed to commence the works or has suspended the progress of works for twenty eight days after receiving a written notice from the Engineer in charge to proceed or
- c) Has failed to remove materials from the site or to pull down and replace work for twenty eight days after receiving the written notice from the engineer in charge stating that the said materials or work stands condemned and rejected under these conditions, or
- d) Despite previous warnings in writing by the Engineer in charge, not executing the works and achieving the progress as stipulated in the programme schedule drawn for the contract or is persistently or flagrantly neglecting to carry out the obligations under this contract, or
- e) Has, to the detriment of good workmanship, or in defiance of the instructions of the Engineer in charge or in contrary, sublet any part of the contract, then the Employer, may at his option, after giving two weeks' notice in writing to the contractor, enter upon the site and the works and expel the contractor there from without thereby voiding.
- f) The contract, or releasing the contractor from any of his obligation or liabilities under this contract, and may himself complete the works or may employ any other contractor to complete the work. The employer or such other contractor may use the construction plant, temporary works and materials which have been deemed to be reserved exclusively for the execution of the works under the provisions of the contract as may be thought fit and proper for the completion of the work. The employer may, at any time, sell any of the said constructional plant, temporary works and materials which have been deemed to be reserved exclusively for the execution of the works under the provisions of the contract as may be thought fit and proper for the completion of the work. The employer may, at any time, sell any of the said constructional plant, temporary works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the contractor under this contract.
- g) Has carried out work in defective manner
- h) Has not made payment of labour dues.
- i) Has become eligible for maximum compensation under the liquidated damages clause leading to termination of the contractor.

The Engineer in charge shall as soon as may be practicable after any such entry or expulsion by the employer, fix and determine expert or by after reference to the parties, or after such investigation or enquires as may be thought fit to make or institute, and shall clarify what amount, if any, had at the time of such entry and

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expulsion been reasonably occurred to the contractor in respect of work then actually done by him under this contract and the value of any of the said unused or partially used materials, any constructional plant and any temporary works.

If the employer shall enter and expel the contractor under this clause, the employer shall not be liable to pay to the contractor any money on account of the contract until the expiration of the period of maintenance and thereafter until the costs of execution and maintenance, damages for delay in completion, if any and all other expenses incurred by the Employer have been ascertained and the amount thereof certified by the engineer. The contractor shall then be entitled to receive only such sum or sums, if any as the engineer in charge may certify would have payable to him upon due completion by him after deducting the said amount. If such amount shall exceed the sum which would have been payable to the contractor on due completion by him, then the contractor shall, upon demand, pay to the employer the amount of such excess and it shall be deemed a debt due by the contractor to the Employer and shall be recoverable accordingly.

If, by reason of any accident, or failure, or other event occurring to or in connection with the work, or any part thereof, either during the execution of the works, or during the period of maintenance, any remedial or other work or repair shall in the opinion of the Engineer in charge or his authorized representative, be urgently necessary for the safety of the works and the contractor is unable or unwilling at once to do such work or repair as the Engineer in charge or his representative may consider necessary, such works shall be carried out by the Engineer in charge. If the work or repair so done, which in the opinion of the Engineer in charge, liable to have been done by the contractor at his expense under this contract, all expenses incurred by the Employer in carrying out such works shall be recoverable from the contractor or shall be deducted by the Employer from the money due to the contractor.

Provided always that the Engineer in charge or his representative, as the case may be, shall as soon after the occurrence of any such emergency as may be reasonably practicable, notify the contractor thereof in writing.

#### **34. Power to vary Work**

The description of the works required to be executed by the contractor/ firm are set out in the specifications, schedules and drawings, but the Engineer in charge reserves the power to vary, extend or diminish the quantities of work, to alter the line, level or position of any work, to increase, change or decrease the size, quality, description, character or kind of any work, to order the contractor/ firm to execute the works or any part thereof, by day or night work, or to add or take from the work included in the contract as he may deem fit and proper without violating the contract and the contractor/ firm shall not have any claim upon the Employer for any such variation, extension, diminution, alteration, increase, change or decrease other than for the work actually done, calculated according to the prices tendered and accepted in this contract.

#### **35. Extra for Varied Works**

Any unforeseen additional work that may become necessary and is accordingly carried out under this contract based on proper written orders shall be measured and valued by the Engineer in charge at the rates contained in the contractor's/ firm's original bill of quantities. If these rates do not apply to the additional works ordered to be carried out, then prior to execution of the additional work, a rate for such work shall ordinarily be agreed upon and entered in a supplemental schedule and signed by both the Engineer in charge and the contractor/ firm.

#### **36. Omissions**

In the event of anything reasonably necessary or proper to the due and complete performance of the work (Engineer in charge will be the sole judge on these things) being omitted to be shown or described in the drawings, specifications and schedules, the contractor/ firm shall notwithstanding execute and provide at the rates noted in the bill of quantities all such omitted works and things as if they have been severally shown and described and the execution should be according to the directions of the Engineer in charge and to his satisfaction.

#### **37. Notices Regarding Shoring etc**

Wherever shoring or other works for the protection or security of the buildings/ structures are necessary, the contractor/ firm shall within a reasonable period before the execution of such works, shall serve notices upon the occupiers of the buildings/ structures to be shored up or otherwise secured and upon all other parties entitled to notice, apprising them respectively that such works are necessary, that the contractor/ firm is about to execute the same and will, at a time to be specified in such notice, enter upon the premises for the purpose of executing such works.

#### **38. Cost of Repairs**

Loss or damage to the Works or materials to be incorporated in the works between the Start Date and the end of the Defects Liability periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions

#### **39. Suspension of Work**

The Contractor shall, on the instructions of the engineer, suspend the progress of the Works or any part thereof for such time and in such manner as the Engineer may consider necessary and shall, during such suspension, properly protect and secure the Works or such part thereof so far as is necessary in the opinion of the Engineer in charge.

**40. Suspension of Progress**

The contractor/ firm shall, without recompense, claim or demand, delay or suspend the progress of works as a whole or any part thereof, if and when or so often as directed by the Engineer in charge and for such time or times, as may be in the judgement of the Engineer in charge be necessary for the purposes or advantages of the undertaking. Upon all such occasions, whether directed or not, the contractor/ firm at his/ their expense, properly cover down and secure so much of the work as may be liable to sustain damage from weather or any other cause and shall at all times and forthwith when required properly make good all the damage or injury which such works or any part thereof may have sustained and these should be done to the entire satisfaction of the Engineer in charge.

**41. Termination**

The Employer may terminate the Contract for any reason that is regarded as breach of the Contract

If the contract is terminated, the contractor shall stop work immediately, make the site safe and secure and leave the site as soon as reasonably possible

On termination of the contract, the Engineer shall issue a certificate for the value of work done less payments received upto the date of the issue of certificates, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be treated as debt payable to the Employer and can be recovered from any amount due or may become due to the contractor

In the case of termination, works that are pending for the proper completion of the project, shall be carried out by the Employer either by themselves or through any other agency. Any additional expenditure over the value finalised in the contract for any component or for the whole project, incurred by the Employer due to such termination, shall become recoverable from the contractor/ firm whose contract stands terminated, from the money due or may become due to him/ them.

All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of Contractor's default

**42. Plant etc not to be removed**

The plant, tools and materials provided by the contractor/ firm shall, from the time they are brought to the site of the works, during the construction and until the satisfactory completion of the contract, shall become and continue to be the property intended for the proper fulfillment of the contract and the contractor/ firm shall not remove the same or part thereof without the consent of the Engineer in charge in writing.

**43. Contractor not to occupy Land etc**

In no case shall the contractor/ firm continue to use or occupy or allow to be used or occupied any land or property either for the deposit of materials or plant or for any purpose whatever, after written notice from the Engineer in charge served on the contractor/ firm to the effect requiring the contractor/ firm to remove or cause to be removed all such materials from any such land or property as aforesaid and to give vacant possession of such land or property to the Engineer in charge. All such notices shall be served through post office or other modes of delivery to the contractor/ firm at his/ their usual or last known place of business, It is enough for the Engineer in charge to send the notice through any mode of delivery as he may prefer and implement this clause irrespective of the receipt of the notice by the contractor/ firm. Should any materials or plant remain upon any such property or land or should any such land or property continue to be occupied or be used after such notice for any purpose whatsoever as aforesaid, then and in every such case and as often as the same shall happen, the contractor/ firm shall forfeit and on demand pay to the Employer the charges fixed by the Engineer in charge as and for liquidated and ascertained damages for each and every day during which the said lands or property are so used and occupied as aforesaid from the time of such notice shall have been served.

**44. Power Supply**

The power supply connection from the TNEB has to be obtained by the contractor himself and the charges thereon shall be borne by the contractor. However, necessary vouchers in original for the payment made to the TNEB shall be produced to the Employer by the contractor which will be reimbursed by the Employer.



#### **45. Completion and Delivery of the Works**

The completion and delivery of the works shall be deemed to be full, complete and sufficient only when the Engineer in charge accepts the same and issues a certificate in writing viz. "Certificate of Completion" under the hand of the Engineer in charge to the effect that all the works contracted for and directed to be executed have been completed and are in a sound, water tight, workmanlike and complete and usable condition and the contractor has in the opinion of the Engineer in charge reasonably fulfilled and completed his contract and undertaking except so far as it relates to the maintenance of the works as hereinafter provided. Provided always and notwithstanding anything contained in the contract, it shall be lawful for the Employer to undertake and execute either departmentally or through other parties at any period during the continuance of this contract, any kind of work, matter or thing whatsoever, which they may consider necessary or proper to be performed and executed for the purpose of and in connection with any or all of the works under this contract and that without in any way relieving the contractor/ firm from any of his/ their liabilities and responsibilities under this contract or in any way vitiating or voiding this contract.

#### **46. Final Certificate**

When the works covered under this contract are completed in all respects, the contractor/ firm shall submit a request to the Engineer in charge to make a final measurement of the works and take over the whole of the works on behalf of the Employer and issue a final certificate to enable him/ them to submit a final bill for payment. The Engineer in charge shall thereupon, unless he records reasons in writing to the contrary, make a final measurement of the works and take them over on behalf of the Employer and sign a certificate purporting to be a last certificate. Nothing in this clause or in the agreement shall prohibit the Employer taking over and using any portion of the works which may be completed prior to the completion of the whole works of this contract.

#### **47. Completion Certificate**

The Contractor shall request the Engineer to issue a certificate of Completion of the Works and the Engineer shall issue certificate of completion after satisfactory completion of the works in all respects

#### **48. Taking Over**

The Employer shall take over the Site with the works within thirty days after satisfactory completion of the maintenance of the entire project for the stipulated period as contemplated in this contract.

#### **49. Performance Guarantee**

The period of guarantee for the entire works shall be 2 months from the date of completion and commissioning of the project to the satisfaction of the Engineer in charge of the work. If defects are noticed during the guarantee period, the firm/ contractor shall rectify/ replace wherever necessary at its/his own cost within 30 days of such intimation. If the contractor/ firm fails to carry out rectification within the stipulated time, the rectification works shall be carried out by the Employer at the risk and cost of the contractor/ firm and contractor/ firm will become ineligible for the payment of the retention amount for the said purpose.

#### **50. Maintenance of the Project**

The contractor/ firm shall successfully maintain the project for the stipulated period from the date of successful commissioning of the project. During the period of maintenance, all costs towards Labours, spares, consumables, chemicals, repairs and renewals shall be borne by the firm/ contractor. The electrical energy charges payable to the TNEB during the maintenance period shall be borne by the Employer.

#### **51. Operating and Maintenance Manual**

"As built" drawings and operating and maintenance manuals shall be supplied by the contractor/ firm at the time of handing over the completed works at his/ their cost

- 51.1 The contractor/firm should prepare the details of infrastructures created under the scheme in the prescribed format, supplied by the Engineer as executed by them in the booklet without any omission at the time of handing over after maintenance period. The components not included in the prescribed format but executed should be added suitably. The item of work not covered under the contract need not be included and the respective format may be deleted instead of exhibiting the format and indicating the details as "NIL" The contractor/firm should also prepare drawing using Autocad, Software showing the location and details of all components of works executed by them along with C.D.
- 51.2 The booklet containing the details of infrastructures with drawings should be signed by the contractor/firm and the Executive Engineer. The booklet should be of A4 size neatly prepared with computer (Laser) printout. Required number of copies of booklet may be prepared by the contractor/firm and shall hand over to various offices as indicated below retaining one copy for the contractor duly informing the Engineer.

1. Division Office	: 1 No.
2. Superintending Engineer's office	: 1 No.
3. Regional office	: 1 No.
4. Head office (Duplicate)	: 2 Nos.
5. Local Body (Respective each local body)	: 1 No.
6. CMA/DTP's office	: 1 No.

## **52. Work on Private Property**

The contractor/ firm shall not commence any work in or upon, under, across or through any land, house building, shed, yard, area, roadway, ground, garden or any other place being private property until authorised in writing by the Engineer in charge to do so.

## **53. Protection**

It will be the responsibility of the contractor to take adequate precautions and protect the adjoining sites against structural, decorative and other damages. The contractor shall be responsible for the safety of the public properties wherever the works are executed. Whenever damages are caused to the adjoining structures, roads, bridges etc due to the execution of this contract, it will be the responsibility of the contractor to restore them to their original level at his cost

## **54. Accident or Injury to Workmen**

The Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Subcontractor. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto

## **55. Risk Insurance**

The firm/ Contractor shall provide risk insurance at their/ his cost against loss or damages to the construction to cover from the start date to the end of the Defects Liability Period, for the following events

- ◆ Loss of or damage to the Works, Plant and Materials
- ◆ Loss of or damage to Equipment
- ◆ Loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract and
- ◆ 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. The contractor will not be eligible for any payment on this account

If the Contractor does not provide any of the policies and certificates required, the Employer shall 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

## **56. Care and Risk**

From the date of commencement to the date of completion of the work and during the period of maintenance, the contractor shall take full responsibility and care thereof for the safety of the installation connected with the works. Any damage or loss are to be made good at the risk and cost of the contractor and shall ensure conformity in every respect with the requirements of the contract. The contractor shall be liable for any damage to the works occasioned by him in the course of any operation carried out by him for the purpose of completing any outstanding work and the damage so occurred shall be rectified at the cost of the contractor.

56(i) Date of commencement of maintenance will be from the date of commissioning of the schemes in all respects i.e. after supply effected to all beneficiaries covered under this scheme.

56(ii) In cases where the work could not be completed due to the reasons beyond the control of the contractor viz due delay in getting permission from the Railway/Highway authorities, the partial commencement of the maintenance will be permitted for other completed work/completion from the date in which these components/works were commissioned and water supply effected to the beneficiaries and of separate maintenance period may be reported as per Agreement condition for the components after its completion.

## **57. Safety Provisions**

The contractor shall arrange for the safety provisions in his operation as required including the provisions in the safety manual published by the central water and power commission. New Delhi (January 1962 edition). In case the contractor fails to make such arrangements the Engineer in charge shall be entitled to cause them to be provided and to recover the cost thereof from the contractor.

For failure to comply with the provision of Safety Manual, the contractor shall without prejudice to any other liability, pay the Employer a sum for each day of default at the rates that will be fixed by the Employer.

**58. Provision of Health and Sanitary Arrangements**

The contractor/ firm, shall provide at his/ their own expenses, first aid appliances and medicines including an adequate supply of sterilised dressing and sterilised cotton wool kept in good order under the charge of a responsible person who shall be readily available during working hours.

Water of good quality fit for drinking purposes shall be provided for the work people on a scale of not less than 15 litres per head per day. Each water supply storage shall be at a distance of not less than 15 metres from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or other sources of pollution, the well shall be properly chlorinated before water is drawn from it for drinking.

Adequate washing and bathing places shall be provided separately for men and women and such places shall be kept in clean and drained condition. Latrines and urinals shall be provided within the precincts of work place and the accommodation separately for each of them shall be at the rate of 2 seats upto 50 persons, 3 seats above 50 persons but not exceeding 100 persons, and 3 seats for every additional 100 persons. The contractor/ firm shall employ adequate number of scavengers and conservancy staff to maintain the latrines and urinals in a clean condition.

Two sheds one for meals and the other for rest shall be provided separately for the use of men and women workers and properly maintained.

All the above amenities shall be provided at the contractor's/ firm's own expenses besides providing sheds for his/ their workmen.

**59. Patent Rights**

The Contractor shall save harmless and indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, design trademark or name or other protected rights in respect of any Contractor's Equipment, material or Plant used for or in connection with or for incorporation in the Works and from and against all damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto

**60 Royalties**

Except where otherwise stated, the contractor shall pay all signorage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, Gravel, clay or other materials required for the works

**61. Old Curiosities**

All old curiosities, relics, coins, minerals and any other item of archeological importance found at the site shall be the property of the Government and shall be handed over to the Engineer in charge for depositing to the Government exchequer. Should any structure be uncovered, the instruction of the Engineer in charge shall be provided before demolition or removal of the structure.

**62. Contractor Dying, becoming Insolvent or Insane**

In the event of death or insanity of the contractor, the contract may be terminated by notice in writing, pasted at the site and advertised in the issue of the local newspaper. All acceptable works shall thereafter, be paid at appropriate rates after recovering all the contractor's dues to Employer, to the persons entitled to receive and give a discharge for such payments.

If the contractor is imprisoned because insolvent compound with his creditors has a receiving order made against him or carriers on business under receiver for the benefit of the creditors of any of them or being a corporation goes into liquidation or commences to be wound up not being a voluntary winding up for the purpose only of amalgamation or reconstruction, the employer shall be at liberty.

- a) To give such liquidator, receiver or other persons in whom the contract may become vested the option of carrying out the contract or a portion thereof to be determined by the employer, subject to his providing an appropriate guarantee for the performance of such contractor
- b) To terminate the contract forthwith by notice in writing to the contractor the liquidator, the receiver or person in whom the contract may become vested and take further actions as provided in the clause pertaining to default by contractor, treating as if this termination is ordered under the respective clause.

**63. Force Majeure**

The works taken by the Contractors under the contract shall be at the contractor's risk until the work is taken over by the Executive Engineer. The contractor shall arrange his own insurance against fire, flood, Volcanic eruption, earth quake and other convulsions of nature and all other natural calamities, risks arising out of acts of god, Acts of Terrorism, Civil disturbances, Riots during such period and that the TWAD Board / Government shall not be liable for any loss or damages occasioned by or arising out of any such acts of God.

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

**64. Payment out of Public Funds**

The payments to the contractor/ firm shall be made out of the funds under the control of the Employer in their public capacity and no member or officer of the Employer shall be personally responsible to the contractor/ firm.

**65. Bribery and Collusion**

In the event of the contractor offering or giving any official of the employer, any gift or consideration of any kind as an inducement or regard for doing, or for bearing to do, any action in relation to obtaining or in the execution of the contract or any other contract with the employer, or for showing favour to any person in relation to the contract or any other contract with the employer, or if any of the such acts shall have been done by any person employed by the contractor or acting on his behalf, either with the knowledge of the contractor or not which are all grounds for the employer to terminate the contract awarded to the contractor. Similarly if the contractor colludes with another contractor or number of contractors whereby an agreed quotation or estimate shall be offered as a bid, that will also form the basis for the employer to terminate the contract.

**66. Technical Audit**

It is a term of this contract that department shall have the right to carry out post payment audit and technical audit by the Engineer of the technical audit cell (or by an approved consultant of repute.) The Technical audit officer shall the officer shall the powers to inspect the work or supply, examine running account bills, final bills and other vouchers, measurement books, test reports and other documents either during progress of work or after completion of same and other recoveries from the contractor for recorded reasons even though the contractor might have been paid earlier. These recoveries are enforceable against the contractor from any amount due to him, from performance security or withheld amounts, or amount due to the contractor or may become due to him from the department on any work or supply.

**67. Jurisdiction of Court**

In the event of any dispute arising between the parties hereto in respect of any matter comprised in the contract, the same shall be settled by a competent court having jurisdiction over the place where the contract is awarded and agreement is concluded and by no other court.

**68. Reservation of Right**

The Employer reserves the right to accept or reject any or all the bids and to annul the entire process of bidding at any time. Under such circumstances, the Employer will neither be under any obligation to inform the bidders of the grounds for the action of the Employer nor the Employer will be responsible for any liability incurred by the bidder on this account.

**PRICE BID  
SCHEDULE - A.**

1. Bill of quantities shall be read in conjunction with the instructions to bidders and TWAD Board Manual for Rural Water Supply schemes – Detailed standard specifications and General conditions of contract and Drawings.
2. The quantities given in the bill of quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be actual quantities of work ordered and carried out, as measured by the Engineer and agreed by the contractor and valued at the rate and prices tendered in the priced bill of quantities, where applicable, and otherwise at such rates and price as the Engineer may fix within the terms of the contract.
3. The rates and prices tendered in the priced bill of quantities shall, except in so far as it is otherwise provided under the contract, include all constructional plant, labour supervision, materials, erection, maintenance, insurance profit, taxes and duties together with all general risks, liabilities and obligation set out or implied in the contract.
4. All pages in the B.O.Q. should be signed without omission.
5. All corrections/over writing should be properly attested by the bidder.
6. The total amount arrived based on the excess/less quoted on the “Abstract of BOQ” will only be taken as final value for comparison and finalisation of the Tender.
7. If there is any variation in the percentage quoted in words and figures, the lesser of the two will only be taken into consideration.
8. The percentage quoted in the bid should be upto two decimal only.
9. If the tenderer failed to score out the word either of “Excess” or “Less” the word less alone will be taken into consideration.
10. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the directions and discretion of the Executive Engineer in accordance with clause 54 and clause 58 of the General conditions of contract.
11. The method of measurement of completed work for payment shall be in accordance with T.N.B.P.
12. Correction of Errors.  
The Executive Engineer reserves the right to correct the errors as follows.
  - a. Where there is a discrepancy in the unit rate between the rate in figures and words, the correct rate based on data as certified by the Executive Engineer shall be taken as final.
  - b. Where there is a discrepancy between the unit rate and the total amount derived from the multiplication for the unit price and the quantity, the unit rate will govern.
  - c. The Executive Engineer shall adjust the amount stated in the Schedule “A” in accordance with the above procedure for the correction of errors and this shall be binding on the bidder. If the bidder does not accept to the corrected amount of the bid derived through the above procedure, his bid will be treated as non-responsive & will be liable for rejection.

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## NOTE:

- 1 The percentage excess/less shall be mentioned both in words and figures .
- 2 The percentage excess / less quoted in the " Abstract of BOQ " will only be taken as the final value for comparison and finalisation of the tender .
- 3 Where there is a discrepancy between the quoted tender percentage excess over/less than departmental value in schedule 'A' by the tenderer in figures & words, the least of the two will govern.
- 4 The percentage to be quoted in the bid shall be upto TWO DECIMAL ONLY
- 5 If the tenderer failed to score out the word either of "EXCESS OR LESS" , the word "LESS" alone will be taken in to consideration .
- 6 In respect of this work, Water Treatment Plant is not available and the rates adopted in the B.O.Q is inclusive of Excise Duty.
- 7 If two or more tenderers / firms have quoted the same percentage of excess or less over the departmental value in the Abstract of BOQ , then the successful tenderer will be decided by "LOT SYSTEM" provided they satisfy all other requirements in the presence of tenderers or their authorised representatives who choose to be present during the tender opening.

## **VII. Pumpsets and Accessories**

### **I General**

1. All the materials used shall conform to the relevant BIS and should be delivered at site of work. The contractor is responsible for safe custody of machinery and other equipments under this contract till handing over to the employer.
2. The rates should include all the minor items of civil works, if any required for installation complete
3. All necessary civil works for creation of all equipments and accessories offered by the contractor under this contract should be done by the contractor.
4. Test certificates for machinery and equipments should produced along with supply
5. The bidder should enclose the performance curve duly indicating the duty point for the size of the impeller selected (family curve should not be furnished) the performance curve should furnish complete range of operation and the curve should be authenticated by the manufacturer or his authorised dealer. In the event of non compliance the offer shall be summarily rejected
6. The contractor shall make necessary arrangements to get supply of electricity from TNEB for operating the machinery and equipments. Necessary vouchers in original for the payment made to the EB shall be produced to the employer by the contractor which shall be reimbursed by the employer.
7. Before supply of machinery, equipments and other accessories prior approval of the Engineer should be obtained giving the name of makes and other details required.
8. Obtaining approval or electrical layout diagram for the installation of all the equipments (transformers, generators, pumpsets and other accessorice) and obtaining safety certificate on completion of work from Chief Electrical Inspector to Government of Tamil Nadu should be arranged and got approved by the contractor at his cost.
9. The contractor should get the layout approval in time before execution and

for the size and capacity of the equipments before the supply of the same. After execution of the Safety Certificate if any modification or alteration suggested by the Chief Electrical Inspector on the installation work done by the contractor should be carried out by the contractor at his cost.

10. All the materials should be supplied as per BOQ and should be of standard makes mentioned below:-

Sl.No.	Description	Make
1	Centrifugal pump	Kirloskar, Jyothi, Best and Crompton Mather and Platt, Inorthington, Flow More or Equivalent.
2	Turbine pump	Kirloskar, Jyothi Best and Crompton Mather and Platt, Inorthington, Flow more Fair Banks Morse or equivalent.
3	Submersible pump and motor	KSB, Calama, Waterman, Atlanta or equivalent.
4	Make of motor	Kirloskar, Jyothi NGEF, GEC, Crompton and Greeves, Mather and Platt Siemens or equivalent.
5	Make of transformer	Kirloskar, GEC Indo TECH, Hindustan or equivalent
6	Diesel Generator	Kirloskar, GEC of equivalent
7		L&T, Cutler Hammer, Siemens, MEI or equivalent.
8	Switch fuse and circuit breakers	L&T, Cutler Hammer, Siemens, MEI or equivalent.
9	Cables	Finolex, Unista, Uniflex or equivalent.
10	Valves	Kirloskar, Venus, Upadaya CALSONS or equivalent.

11. The right of choosing the make among the makes offered by the contractors rest with the employer only.

12. The submersible pumps centrifugal pumps, turbine pumps submersible motors, motors for turbine and centrifugal pumpset transformer, generators, Panel Boards to be supplied by the firm will be inspected by the Inspecting



Agency fixed by the Employer at the manufacturers premises and test certificate will be issued. The contractor should make necessary arrangements for the inspecting staff at his own cost for testing the above pumpsets.

All tests necessary to ensure that the plant and machinery or equipment complies with the specification and guarantees shall be carried out at site and at the contractor's cost and such test shall be carried out within one month of completion of erection. Should the result of these test not done within the margin specified, the tests shall if reported within one month from the date of plant is ready for retest and the contractor shall repay to the Engineer all reasonable expenses to which he may be put by such test.

- 13) If the complete plant or any portion there of is found to be defective the Engineer shall give the contractor a notice in writing to verify such defects. If the contractor fails to rectify the defects within the specified period the Engineer will rectify the defects at the contractor's risk and cost.