

STANDARD BIDDING DOCUMENT

PROCUREMENT OF CIVIL WORKS



GOVERNMENT OF BIHAR

PUBLIC HEALTH ENGINEERING DEPARTMENT

INVITATION FOR BID (IFB)

PUBLIC HEALTH ENGINEERING DEPARTMENT

LETTER OF SUBMITTING TENDER

To,
Executive Engineer
P.H. Division, Munger.

Subject: Comprehensive operation and maintenance and Special repair of Ward level Piped Water Supply Schemes (Quality/Non-Quality) based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years.

Ref.: Your tender notice no.: **02(R1)/MUNG/PHED/O&M-PHED/2026-27** dated.: 04.06.2026
Dear Sir,

With reference to the tender invited by you for the aforesaid work “Comprehensive operation and maintenance and Special repair of Ward level Piped Water Supply Schemes (Quality/Non-Quality) based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years”;

I/We have read and examined the tender documents containing condition of contract, specification, details of work and Bill of quantity.

I/We hereby tender for the execution of the works referred to in the aforesaid documents upon the terms and conditions contained or referred to therein and in accordance with all respect with the specifications, designs, drawings and other relevant details as such amount, rate, as may be fixed under the terms and conditions of the contract and within the period of completion as stipulated in the tender documents.

I/We hereby agree that I/We have made myself/ourselves, thoroughly conversant with the local conditions regarding all materials and labors on which I/We have based my/our rates for this work.

I/We agree to keep the tender open for acceptance for 180 days from the last date specified for the submission thereof and not to make any modifications in terms and conditions, which are not acceptable to the department.

I/We also agree that any terms and the conditions in the tender at variance with the above stipulation will render the tender liable for rejection.

I/We have deposited as Earnest money of Rs. 39.501 Lkah in shape of Bank Guarantee/ Online mode duly pledged in favor of Executive Engineer, P.H. Division, Munger.

I/We do hereby agree that if after the tender is accepted and if I/We fail to execute the agreement within 21 days of the receipt of the Letter of Award, the department shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money absolutely.

I/We undertake to commence the work within 7 days of the date of issue of Work Order by the department. I/We understand that you are not bound to accept the lowest of any tender that you receive.

This tender together with relevant correspondence till finalization of the contract shall constitute a part of the contract between us.

Signature of Tenderer

Date :

Postal Address

Telephone No.



Government of Bihar
Public Health Engineering Department
Public Health Engineering Division, Munger
SHORT-TERM TENDER NIT No – 02(R1)/MUNG/PHED/O&M-PHED/2026-27
National Competitive Bidding
(Through e-procurement mode on www.eproc2.bihar.gov.in)

1	Designation and Address of Advertiser	Executive Engineer, P. H. Division, Munger
2	Date of issue of Tender Notice	04.06.2026
3	Period of sale (downloading) of tender Bid Document	12.06.2026 to 22.06.2026 up to 15:00 Hrs. through www.eproc2.bihar.gov.in
4	Date, time & place of pre-bid meeting	15.06.2026 at 12:00 Hrs. in the Office of Executive Engineer of concerned P. H. Division
5	Last date and time of receipt (uploading) of tender	22.06.2026 up to 16:00 Hrs. on www.eproc2.bihar.gov.in
6	Date and time of opening of technical bid	22.06.2026 at 16:30 Hrs. on www.eproc2.bihar.gov.in
7	Date and time of opening of financial bid	To be informed later after the approval of technical bid.

9. Details of works:

Gr ou p No	Name of Work	Estimated Cost (in Lakh)	Amount of Earnest Money (in Lakh)	Cost of Tender Document (non- refundable) in Rs.	BSEDC Bid Processin g Fee (in Rs.)	Completi on Period (in months)
1	2	3	4	5	6	7
1.	Comprehensive operation and maintenance, routine repairs and Special repairs of i.) Rural Piped Water Supply Scheme (PWS), ii.) Single Village piped water supply schemes (SVS), iii.) Ward level Piped Water Supply Schemes in quality affected wards (WLS_Quality) and iv.) Ward level Piped Water Supply Schemes in non quality affected wards (WLS Non Quality) based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bills for five years.	2950.095 24	39.501	10000.00	As Applicabl e	60 months

10. Any Contractor registered in appropriate class with Central Government/ State Government or their undertakings, any PSU in requisite class, or an agency of international or national repute may participate in the tender but registration with the Public Health Engineering Department, Bihar in requisite class will be essential after issue of LoA and before signing the agreement.
11. The bidder shall submit his bid/tender on e-Procurement platform at www.eproc2.bihar.gov.in.
12. The bidder must have the class I/II Digital Signature Certificate (DSC) with signing+ Encryption and user-id of the e-Procurement website before participating in the e-tendering process. The bidder may use their DSC if they already have. They can also take DSC from any of authorized agencies. For user-id they have to get registered themselves on e-procurement website www.eproc2.bihar.gov.in and submit their bids online on the same. The offline bids shall not be entertained by the tender inviting authority for the tenders published in e-procurement platform.
13. The bidders shall submit their eligibility and qualification details, technical bid, financial bid etc, in the online standard formats given in e-procurement website at the respective stage only. The bidders shall upload the scanned copies of all the relevant certificates, documents etc, in support of their eligibility criteria/technical bids and other certificates/ documents in the e-procurement website. The bidder shall digitally sign on the supporting statements, documents, certificates uploaded by him, owing responsibility for their correctness/authenticity. The bidder

shall attach all the required documents for the specific tender after uploading the same during the bid submission as per the tender notice and bid document.

14. All the required documents should be attached at the proper place as mentioned in the e-forms otherwise the tender of the bidder may be rejected.
15. Tender Processing Fee (TPF) to be paid through e-payment mode (i.e. NEFT/RTGS, Credit/Debit Card and Net Banking) only.
16. The cost of the BOQ/form fee to be paid through e-payment mode (i.e. NEFT/RTGS, Credit/Debit Card and Net Banking) only.
17. The estimated cost may increase/decrease, though cost of tender document, bid processing fee and amount of earnest money will remain the same.
18. "Earnest Money Deposit" (EMD) can be paid either through online mode (IPG) or Bank Guarantee. The Bank Guarantee shall be uploaded along with the Bid.

Note: "Bids along with necessary online payments must be submitted through e-procurement portal www.eproc2.bihar.gov.in before the date and time specified in the NIT/RFP. The department/tendering authority don't take any responsibility for the delay/non submission of tender/ non reconciliation of online payment caused due to non availability of internet connection, internet traffic/holiday or any other reason."
19. The tender opening will be done online only.
20. Any corrigendum or date extension notice will be given on the e-procurement website only.
21. Bidder must qualify the Eligibility Criteria as set out in the ITB of the bidding document.
22. Bank Guarantee issued from any Schedule Bank within state (If issued from any bank outside state then it will be converted to any bank within state before executing the work agreement) and valid up to 225 days after the date of receipt of tender.
23. Detailed terms and conditions of tender will be enclosed along with the Bidding Document, and will be binding on the tenderer.
24. The bidders must submit an affidavit separately with the bid document that they are not liable for disqualification as per clause 4.8 (Instruction to bidders: Section 1 General) of the Bid Document.
25. For rates quoted below the estimated cost, additional performance guarantee shall be deposited by the tenderer as per conditions of bid document and government circulars at the time of agreement.
26. The bidders are advised to visit work sites before submission of tender to study local site conditions, availability of labor and material etc.
27. The undersigned has the right to extend, accept or reject the tender without assigning any reason thereof.

28. **No claim shall be entertained because of disruption of internet service being used by the bidders. Bidders are advised to upload their bids well in advance to avoid last minute technical snags.**
29. **In pursuance of the judgment of Hon'ble High Court in CWJC no. 9941/2022 and relevant office orders of RCD vide letter no. 447(s), 448(s) dtd. 16.01.2020 and BCD letter no. 556(Bh) dtd. 17.01.2022 the clauses of these letter shall be admissible for this tender.**
30. For support related to e-tendering process, bidders may contact at following address "E-procurement helpdesk, M Junction services limited, R J Complex, 2nd floor Khajpura, Patna-800014. Toll Free No.- 18005726571, may visit the link "Vendor info" at www.eproc2support@bihar.gov.in
31. For further details, tenderers may contact the undersigned on any working day or see the notice board.
32. The bidders are required to submit a duly "**Notarized affidavit**" stating that there are **no outstanding electricity dues pending** for payment against all electric consumer numbers in their completed or ongoing operation & maintenance contracts till 31.03.26.

The affidavit shall be duly supported/ substantiated by a "**no due certificate**" that there are no outstanding electricity dues pending for payment against all electric consumer numbers in their completed or ongoing operation & maintenance contracts till 31.03.2026 duly issued by the concerned Executive Engineer(s).

Executive Engineer
Public Health Division, Munger

SECTION 1
INSTRUCTION TO BIDDERS
(ITB)

Section 1: Instructions to Bidders

Table of Clauses	Page No.
A. General	12-18
1. Scope of Bid	12
2. Source of Funds	12
3. Eligible Bidders	11
4. Qualification of the Bidder	11-17
5. One Bid per Bidder	17
6. Cost of Bidding	17
7. Site Visit	17
B. Bidding Documents	18-19
8. Content of Bidding Documents	18
9. Clarifications of Bidding Documents	18-19
10. Amendment of Bidding Documents	19
C. Preparation of Bids	19-22
11. Language of Bid	19
12. Documents Comprising the Bid	19-20
13. Bid Prices	20
14. Currencies of Bid and Payment	20
15. Bid Validity	20-21
16. Bid Security	21
17. Alternative Proposals by Bidders	22
18. Format and Signing of Bid	22
D. Submission of Bids	22
19. Sealing and marking of Bids	22
20. Deadline for Submission of Bids	22

21. Late Bids	22
E. Bid Opening and Evaluation	23-25
22. Bid Opening	23
23. Process to be Confidential	23
24. Clarification of Financial Bids	24
25. Examination of Bids and Determination of Responsiveness	24
26. Correction of Errors	24-25
27. Evaluation and Comparison of Financial Bids	25
F. Award of Contract	26-27
28. Award Criteria	26
29. Employer's Right to Accept any Bid and to Reject any or all Bids	26
30. Notification of Award and Signing of Agreement	26
31. Performance Security	26
32. Advance Payment and Security	27
33. Corrupt or Fraudulent Practices	27
G. Appendix to ITB	28-29
H. Annexure-I & Annexure-II	30

A. GENERAL

1. Scope of Bid

- 1.1 The Employer (named in Appendix to ITB) invites bids for the construction of works (as defined in these documents and referred to as “the works”) detailed in the table given in IFB. The bidders may submit bids for any or all the works detailed in the table given in IFB.
- 1.2 The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.
- 1.3 Throughout these bidding documents, the terms ‘bid’ and ‘tender’ and their derivatives (bidder / tenderer, bid / tender, bidding / tendering, etc.) are synonymous.
- 1.4 This Tender will be on item rate basis with sixty months of operation and maintenance.

2. Source of Funds

- 2.1 The expenditure on this project will be met by Public Health Engineering Department, Government of Bihar.

3. Eligible Bidders

- 3.1 This Invitation for Bids is open to all bidders.
- 3.2 All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant; Engineer-in-Charge or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract or involved in supervision of the contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the works, and any of its affiliates shall not be eligible to bid.
- 3.3 Bidders shall not be under a declaration of ineligibility for delay, failure, or corrupt and fraudulent practices by any of the State Govt. or Central Govt. or Public Undertaking or any Autonomous Body.

4. Qualification of the Bidder

- 4.1 All bidders shall provide in Section 2: Forms of Bid and Qualification Information, a preliminary description of the proposed work method and schedule, including drawings and charts indicating milestones to complete the project on time.
- 4.2 All bidders shall also furnish the following information in Section 2.
 - (i) Evidence of access to or availability of credit facilities (minimum 10% of estimated cost) certified by the bankers.
 - (ii) Undertaking that bidder would be able to invest a minimum of cost up to 25% of the contract value of work, during implementation of contract.
 - (iii) Proposals, if any, for sub contracting of elements of work, costing more than 10% of the bid amount.
 - (iv) Power of Attorney, if any.
- 4.3 All bidders shall include the following information and documents with their bids in Section 2:

- (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;
- (b) Total monetary value of construction work performed for each of the last five years;
- (c) experience in works of a similar nature and size for each of the last five years, and details of works underway or contractually committed; and clients who may be contacted for further information on those contracts;
- (d) major items of construction equipment proposed to carry out the Contract or evidence of arrangement; of possessing them on hire/lease/buying as defined therein;
- (e) qualifications and experience of key site management and technical personnel proposed for contract;
- (f) reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years;
- (g) evidence of access to line(s) of credit and availability of other financial resources facilities (10% of contract value), certified by the Bankers (Not more than 3 months old);
- (h) Undertaking that the bidder will be able to invest minimum liquidity up to 25% of contract value of work, during implementation of work.
- (i) authority to seek references from the Bidder's bankers;
- (j) information regarding any litigation, current or during the last five years, in which the bidder is involved, the parties concerned and dispute amount;
- (k) proposals for subcontracting components of the Works amounting to more than 10% of the Bid Price (for each, the qualifications and experience of the identified sub-contractor in the relevant field should be annexed);
- (l) the proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.

4.4 Bids from Joint ventures are acceptable for the projects costing Rs 10 crores or more.

4.4.1 Bids from joint venture are only allowed for the works having estimated cost more than 10 crores. Bids submitted by a joint venture (JV) of not more than a total of three firms as partners shall comply with the following requirements: -

- (i) There shall be a JV agreement (refer Section-8) specific for the contract package between the constituent firms indicating clearly, amongst other things, the proposed distribution of responsibilities both financial as well as technical for the execution of work amongst them. For the purpose of this clause, the most experience lead partner will be the one defined. A copy of JV agreement in accordance with requirements mentioned in Section-8 shall necessarily be submitted with the bid.
- (a) Alternatively, a letter of intent to execute a JV in the event of successful bid shall be signed by all partners of JV and submitted with the bid together with a copy of the proposed agreement. Pursuant to the foregoing, the JV shall include

among other things, the joint venture's objectives, the proposed management structure, the contribution of each partner to joint venture operation, the commitment of the partners to joint and several liability for due performance, recourse/sanctions within the joint venture in the event of default of withdrawal of any partner and arrangements for providing the required indemnities.

- (b) The JV so formed shall also have to be registered with the concerned department after issue of LOA but before the agreement.
- (ii) The bid, and in the case of the successful bidders, the form of agreement, etc, shall be signed and/or executed in such a manner as may be required for making it legally binding on all partners (including operative parts of the ensuing contract in respect of Agreement of Arbitration, etc). On award of work, the Form of Agreement and Contract Documents shall be signed by all partners of the Joint Venture to conclude Contract Agreement.
- (iii) Lead partner shall be nominated as being partner-in-charge; and this authorization shall be evidenced by submitting a power of attorney signed by the legally authorized signatories of all the partners.
- (iv) The partner-in-charge shall be authorized to incur liabilities and to receive instruction for and on behalf of the partners of the Joint Venture, whether jointly or severally and entire execution of the Contract (including payment) shall be carried out exclusively through the partner-in-charge. A copy of the said authorization shall be furnished with the bid.
- (v) All partners of the Joint Venture shall be liable jointly and severally for the execution of the contract in accordance with contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under sub clause (iii) above as well as in the Form of tender and the Form of Agreement (in case of a successful bidder).
- (vi) In the event of default, all the partners of the Joint venture will retain the full and undivided responsibility for the performance of their obligations under the contract and/or for satisfactory completion of the works.
- (vii) The bid submitted shall include all the relevant information as required under the provisions of sub-clause 4.5 of ITB and furnished separately for each partner. The requirement of key plants & equipments construction equipments as per Annexure I of SBD testing equipment for establishing field laboratory key personnel to be employed on contract work as per Annexure II of SBD shall be counted altogether for the partners it shall be less than the requirement.
- (viii) The bank guarantee/other suitable instrument in shape of bid security shall be issued in the name of JV and pledged in favor of employer.

4.4.2 Each partner of the JV must produce:

- (i) The Permanent account number (PAN) of Income Tax
- (ii) An affidavit through 1st class Executive Magistrate that the information furnished with the bid documents is correct in all respect; and
- (iii) Such other certificates as defined in the Appendix to ITB. Failure to produce the certificates shall make the bid non-responsive.

4.4.3 Each bidder must demonstrate:-

- (i) Availability for construction work, either owned, or on lease or on hire, of the key equipment stated in the Appendix to ITB including equipments required for establishing field laboratory to perform mandatory test, and those stated in the Appendix to ITB. The requirement of key plants & equipments construction equipments as per Annexure I of SBD testing equipment for establishing field laboratory key personnel to be employed on contract work as per Annexure II of SBD shall be counted altogether for the partners it shall be less than the requirement.
- (ii) Availability for construction work of technical personnel as stated in the Appendix to ITB. The requirement of key plants & equipments construction equipments as per Annexure I of SBD testing equipment for establishing field laboratory key personnel to be employed on contract work as per Annexure II of SBD shall be counted altogether for the partners it shall be less than the requirement.
- (iii) The joint venture must satisfy collectively the criteria laid down in par 3.1 & 3.2 above.
- (iv) Liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of not less than the amount specified in the Appendix to ITB.
- (v) The bidder must not have in his employment.

(a) The contractor shall not be permitted to tender for works in the Concerned Division (responsible for award and execution of contracts) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Superintending Engineer and Assistant Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted Officer in the Any Work & Deptt. or in the concerned department. Any breach of this condition by the contractors of this Department shall lead to blacklisting. If the contractor is registered in any other department, he shall be debarred from tendering in P.H.E.D. for any breach of this condition.

Note: By the term “near relatives” is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in law.

(a)

- (b) Without Government permission, any person who retired as gazette officer within the last two years and from the departments. The bidder must produce an affidavit stating the names of retired gazette officer (if any) in his employment who retired within the last two years with the following ranks from the departments listed below:

JE/AE/EE/SE/CE/E-in-C & Divisional Accountant of any works department of Bihar State.

In case there is no such person in his employment, his affidavit should clearly state this fact.

4.4.4 To qualify for a package of contracts made up of this and other contracts for which bids are invited in the Notice Inviting Tender, the bidder must demonstrate having experience and

resources sufficient to meet the aggregate of the qualifying criteria for the individual contract.

4.4.5 If bidder is Joint venture, the partners would be limited to three (including lead partner). Joint venture firm shall jointly and severally responsible for completion of the project. Joint venture must fulfill the following minimum qualification requirement.

- (i) The lead partner shall meet not less than 50% (fifty percent) of qualification criteria given in sub-clause 4.2, 4.5 A, 4.5 B, 4.7 & 4.8 of ITB.
- (ii) Each of the remaining partners shall meet not less than 25% (Twenty five percent) of all the qualifying criteria given in sub-clause 4.2, 4.5 A, 4.5 B, 4.7 & 4.8 of ITB.
- (iii) However in case one of the joint ventures partner is proposed to be included primarily to provide financial strength to the joint venture, such joint venture partner shall have to commit to provide liquidity support to the project to the extent of 10% of the value of contract.
- (iv) The joint venture must also collectively satisfy the subject of the criteria of clause 4.2, 4.5 A, 4.5 B, 4.7 and 4.8 of ITB for this purpose the relevant figures for each of the partners shall be 100% or more.
- (v) In the event that the Employer has caused to disqualify under clause 4.8 of ITB and the constitutions stated below all of the Joint Venture partners will be disqualified.
- (vi) Joint venture applicants shall provide a certified copy of the Joint Venture Agreement in demonstration of the partners undertaking joint and several liabilities for the performance of any contract entered into with the bid.
- (vii) The available bid capacity of the JV as required under clause 4.7 of ITB below will be applied for each partner to the extent of his proposed participation in the execution of the work. The total bid capacity available shall be more than estimated contract value.

The available bid capacity will be calculated as under

Assessed Available Bid capacity = $(A \times N \times M - B)$

Where

- | | | |
|---|---|--|
| A | = | Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the last year at the rate of 8 percent a year) taking into account the completed as well as works in progress. |
| N | = | Number of years prescribed for completion of the works for which bids are invited. |
| M | = | 3 |
| B | = | Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited. |

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be

countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

- 4.4.6 Sub-Contractor's (duly authorized) experience and resources shall be taken into account in determining the bidder's compliance with the qualifying criteria. The sub contractor's role may be verified by the employer.
- 4.4.7 Qualification of a joint venture does not necessarily qualify any of its partners individually or as a partner to any other joint venture. In case of dissolution of a joint venture, each one of the constituent firms may qualify if they meet all the qualification requirements subject to the written approval of the Employer.
- 4.4.8 The rescinding of contract of a joint venture on account of reasons other than non-performance, such as most experienced partner of joint venture pulling out, court direction leading to breaking up of a joint venture before the start of work, which are not attributable to the poor performance of the contractor will, however, not affect the qualification of the individual partners.

4.5 A. To qualify for award of the contract, each bidder in its name should have in the last five years as referred to in Appendix :-

- (a) Achieved in any one year a minimum annual financial turnover (in all classes of civil engineering construction works only) volume of construction work of at least the amount equal to the 50% (fifty percent) estimated cost of works for which bid has been invited. The turnover will be indexed at the rate of 8% for a year. The certificates attached in support of turnover attached shall have valid Unique Document Identification Number (UDIN).
- (b) Satisfactorily completed as a prime contractor (or as a nominated sub contractor, where the sub contract involved execution of all main items of work described in the bid document, provided further that all other qualification criterion are satisfied) at least one similar work of value not less than the amount indicated in the appendix (Not less than 10% (Ten percent) estimated value of contract).

Or

Satisfactorily completed water supply scheme (Piped water supply or lift irrigation or water supply in building) at least one work of value not less than 10% (ten percent) of the estimated cost of the works for which bid has been invited.

- (c) Executed the minimum quantities of the following item of work as indicated in the appendix:

Sl. No.	Description of item	Units	Total Quantity in BoQ	Quantity required to have been executed
1	2	3	4	6
1.	Maintenance of water supply schemes in water quality affected areas.	years	5 year	2.50 years
2.	Maintenance of water supply schemes in non water quality affected areas.	years	5 year	2.50 years

Note: Item 1 of the above table shall be mandatorily applicable for bids having quality affected water supply schemes and for non water quality affected water supply schemes any one of the above two items tabulated above is mandatory.

B. Each bidder should further demonstrate:

- (a) Availability (either owned or leased) of the following key and critical equipment for this work:

Based on the studies, carried out by the Engineer the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the Annexure-I

The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with lay out and necessary drawings and broad calculations as stated in clause 4.3(I) above to allow the employer to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- (b) Availability for this work number of personnel with adequate experience as required; as per Annexure-II.
- (c) Liquid assets and/or availability of credit facilities of no less than amount indicated in Appendix

(Credit lines/letter of credit/certificates from Banks for meeting the funds requirement etc. usually the equivalent of the estimated cash flow for 3 months in peak construction period.)

C. To qualify for a package of contracts made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.6 Sub-contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria.

4.7 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A \times N \times 3 - B)$$

Where

A= Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the year indicated in Appendix) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bids are invited.

B = Value (updated to the price level of the year indicated in Appendix) of existing commitments and on-going works to be completed during the next 12 months.

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

4.8 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- have record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc; and/or
- participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

5. One Bid per Bidder

5.1 Each bidder shall submit only one bid for any work or one package or group. A bidder who submits or participates in more than one bid for any work or package/ group will cause all the proposals with the Bidders participation to be disqualified.

6. Cost of Bidding

6.1 The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

In case of cancellation of tender, cost of bidding document will be charged each time.

7. Site Visit

- 7.1 The Bidder, at the Bidder's own responsibility and risk must visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- 7.2 Tender documents are not transferable.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

- 8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10;

Section	Particulars
1	Invitation for Bids
2	Instructions to Bidders
3	Qualifications of Bidders
4	Contract Data
5	Special condition of Contract
6	Technical Specifications
7	Bill of Quantities
8	Securities and other forms
9	Drawing
10	Documents to be furnished by bidder

- 8.2 Deleted

- 8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexures and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 25 hereof, bids which are not substantially responsive to the requirements of the Bid Documents shall be rejected.

9. Clarification of Bidding Documents.

- 9.1 Pre-bid meeting

- 9.1.1 The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as indicated in appendix.
- 9.1.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 9.1.3 The bidder is requested to submit any questions in writing or by fax to reach the Employer not later than one week before the meeting.
- 9.1.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting. All bidders have to collect any addendum within three working day of pre-bid meeting. The bidder shall receive the minutes of the meeting on the next working day of the pre-bid meeting.
- 9.1.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

- 10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addendum.
- 10.2 Any addendum thus issued shall be part of the bidding documents and shall be collected by all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing or by cable to the Employer. The Employer will assume no responsibility for postal delays.
- 10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.

C. PREPARATION OF BIDS

11. Language of Bid

- 11.1 All documents relating to the bid shall be in English.

12. Documents Comprising the Bid

- 12.1 The bid to be submitted by the bidder as per Clause 8.1

Part I shall be named “Technical Bid” and shall comprise

- (i) Earnest money in the form specified in Section 8
- (ii) Qualification Information and supporting documents as specified in Section-2
- (iii) Certificates, undertakings, affidavits as specified in Section 2
- (iv) Any other information pursuant to Clause 4.2 of these instructions
- (v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1

- (vi) An affidavit affirming the information he has furnished in the bidding document is correct to the best of his knowledge and belief.
- (vii) Documents in original duly Signed as in section 3, 5, 6.
- (viii) Technical details such as treatment technology, operation & maintenance, life of plant, consumables if required, performance certificate etc.

Part II shall be named “Financial Bid” and shall comprise

- (i) Priced Bill of Quantities for items specified in Section 7 and shall be submitted online only.
- (ii) Technical and Financial Bid shall be uploaded online. Hard copy of uploaded Tender Document, all the relevant papers, Earnest Money, Cost of Tender Document shall be submitted by the bidders in the Office of Executive Engineer, P.H. Division, Munger. on or before schedule time as per NIT.

12.2 Deleted

12.3 Following documents will be deemed to be part of the bid.

Sl. No.	Particulars
1	Invitation for Bids (IFB)
2	Instructions to Bidders
3	Securities and other forms
4	General Condition of Contract
5	Contract Data
6	Special Condition of Contract
7	Technical Specifications
8	Drawings (submitted by the bidder)

13. Bid Prices

13.1 The contractor shall bid for the whole work as described in Sub-Clause 1.1 based on the priced Bill of Quantities submitted by the Bidder.

13.1.1 The bidders shall adopt the item rate method. Bidders are required to quote rates and prices for all items of the works described in the Bill of Quantities along with total bid price(both in figure and words). Items for which no rate or price is entered by the bidder will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. The bidder shall also fill up price breakup under major components as given in bill of quantity. Correction, if any, shall be made by crossing out, initialing, dating and rewriting. There may remain, however, several minor items not specifically mentioned in the break-up but shall be required to complete the job as per scope and specification of works stipulated in the tender document, these items are deemed covered under other components which are mentioned in bill of quantity.

- 13.1.2 All duties, taxes and other levies payable by the contractor under the contract or for any other clause shall be included in the rates, prices and total Bid Price submitted by the Bidder.
- 13.2 The rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions clause 10CA & 10CC of Conditions of Contract.
- 13.3 The rate should include the cost of all seen and unseen expenditure. No claim, whatsoever, will be entertained due to non-inclusion of any such event necessary for the completion of the item of work.

14. Currencies of Bid and Payment

- 14.1 The units rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

- 15.1 Bids shall remain valid for a period of 180 days after the deadline date for bid submission specified in clause 20. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the Later shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.
- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid.

16. Earnest Money

- 16.1 The Bidder shall furnish, as part of his Bid, a Bid security in the amount as shown in column of the table of tender notice given in IFB.. This bid security shall be in favour of Employer as mentioned in the Bihar Financial Rules, and shall be in any of the following forms.
- a. Unconditional bank guarantee from any scheduled Indian bank issued within the state in the format given (If issued from any bank outside state will be converted to any bank within the state before executing the agreement, duly pledged in favour of the Executive Engineer, P.H. Division, Munger.
- 16.2 Unconditional bank guarantees (and other instruments having fixed validity) issued as Bid Security for the bid shall be valid for 45 days beyond the validity of the bid.

- 16.3 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-Clauses 16.1 and 16.2 above shall be rejected by the Employer as non-responsive.
- 16.4 The Earnest money of unsuccessful bidders will be returned within 28 days after the end of the bid validity period specified in Sub-Clause 15.1
- 16.5 The Earnest money of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.6 The Earnest money may be forfeited
- (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity;
 - (b) if the Bidder does not accept the correction of the Bid Price, pursuant to Clause 26; or
 - (c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - (i) sign the Agreement; or
 - (ii) furnish the required Performance Security.

17. Alternative Proposals by Bidder

- 17.1 Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the conditions of contract, basic technical design as indicated in the drawing and specifications. Conditional offer or alternative offers will not be considered further in the process of tender evaluation.
- 17.2 Conditional tender will be rejected forthwith.

18. Format and Signing of Bid

- 18.1 The Bidder shall submit hard copy of **Technical bid** comprising of the documents as described in clause 12 of ITB.
- 18.2 The Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Sub-Clause 4.3. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid and a certificate of corrections must be given by the employer.
- 18.3 The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

19. Bid Description

- 19.1 The contents of Technical and Financial Bids will be as specified in clause 12.1 of ITB and to be submitted/ uploaded accordingly.
- 19.2 The envelope containing Technical Bid shall
- (a) be addressed to the Employer at the address given in Appendix

- (b) bear the name of work as indicated in Appendix.
 - (c) provide a warning not to open before the specified time and date for bid opening as specified in ITB.
- 19.3 In addition to the identification required in Sub-Clause 19.1 and 19.2, of Technical Bid envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late, pursuant to Clause 21, or if Evaluation Committee declares the bid as non responsive pursuant to Clause 23.
- 20. Deadline for Submission of the Bids**
- 20.1 Complete Bids must be uploaded/ received by the Employer at the address specified above not later than the date indicated in appendix. In the event of the specified date for the submission of bids have declared a holiday for the Employer, the Bids will be received up to the appointed time on the next working day.
- 20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.
- 21. Late Bids**
- 21.1 Any Bid received by the Employer after the deadline prescribed in Clause 20 will be returned unopened to the bidder.

E. BID OPENING AND EVALUATION

- 22. Bid Opening**
- 22.1 The Employer or their authorized representative will open all the Bids received (except those received late), in the presence of the Bidders or their representatives who choose to attend at time, date and the place specified in Appendix in the manner specified in Clause 20 and 22.3. In the event of the specified date of Bid opening being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day. Even in the case of absence of the bidder at the time of opening of bids, department will proceed ahead with the opening.
- 22.2 If any of the tenderers or their agents are not present at the time of opening, the employer will open the tender in their absence and prepare a statement and that will be binding on the absent tenderers.
- 22.3 The envelope containing "Technical Bid" shall be opened. The amount, form and validity of the Earnest money furnished with each bid will be announced. If the bid security furnished does not conform to the amount and validity period as specified in the invitation for Bid and has not been furnished in the form specified in Clause 16, the remaining technical bid and the sealed financial bid will be returned to the bidder.
- 22.4 (i) Subject to confirmation of the bid security by the issuing Bank, the bids accompanied with valid security will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part I of the bid pursuant to Clause 12.1

- (ii) After receipt of confirmation of the bid security, the bidder will be asked in writing (usually within 10 days of opening of the Technical Bid) to clarify his technical bid, if necessary, with respect to any clarification in respect of Technical Bid.
 - (iii) The bidders will respond in not more than 7 days of issue of the clarification letter
 - (iv) On receipt of these clarifications the Evaluation Committee will finalize the list of responsive bidders whose financial bids are eligible for consideration.
- 22.5. At the time of opening of "Financial Bid", the names of the bidders found responsive in accordance with Clause 22.4(iv) will be announced online or through letter. The bids of only these bidders will be opened. The responsive Bidders' names, the Bid prices, the total amount of each bid, any discounts, Bid modifications and withdrawals, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. Any Bid price or discount, which is not read out and recorded, will not be taken into account in Bid Evaluation.

23. Process to be Confidential

- 23.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not official concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid.

24. Clarification of Financial Bids

- 24.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause 26.
- 24.2 Subject to sub-clause 24.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the Bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.
- 24.3 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, Bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

25. Examination of Bids and Determination of Responsiveness

- 25.1 During detailed evaluation of "Technical Bids", the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the "Financial Bid", the responsiveness of the Bids will be further determined with respect to the remaining bid condition, i.e., priced bill of quantities.

- 25.2 A substantially responsive “Financial Bid” is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer’s rights or the Bidder’s obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 25.3 If a “Financial Bid” is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

26. Correction of Errors

- 26.1 “Financial Bids” Determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
- (a) where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
 - (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity the unit rate as quoted will govern.
- 26.2 The amount stated in the “Financial Bid” will be corrected by the Employer in accordance with the above procedure and the bid amount adjusted with the concurrence of the Bidder in the following manner.
- (a) If the Bid price increases as a result of these corrections, the amount as stated in the Bid will be the ‘bid price’ and the increase will be treated as rebate;
 - (b) If the bid price decreases as a result of the corrections, the decreased amount will be treated as the ‘bid price’;

Such adjusted bid price shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Earnest money may be forfeited in accordance with Sub-Clause 16.6(b).

27. Evaluation and Comparison of Financial Bids

- 27.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Sub-Clause 25.2.
- 27.2 In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:
- (a) making any correction for errors pursuant to Clause 26; or
 - (b) making an appropriate adjustment for any other acceptable variations, deviations.
- 27.3 The Employer reserves the right to accept or reject any variation or deviation. Variations and deviations and other factors, which are in excess of the requirements of the Bidding

documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.

- 27.4 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Employer may require that the amount of the performance security set forth in Clause 31 be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
- 27.5 A bid, in the opinion of employee which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

F. AWARD OF CONTRACT

28. Award Criteria

- 28.1 Subject to Clause 29, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price.

29. Employer's Right to Accept any Bid and to Reject any or all Bids

Notwithstanding Clause 28, the Employer reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for the Employer's action.

30. Notification of Award and Signing of Agreement

- 30.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by letter. This letter (hereinafter and in the General Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 30.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of the performance security in accordance with the provisions of Clause 31.
- 30.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder, after the performance security is furnished.

31. Performance Security

- 31.1 Within 15 (Fifteen) days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security for an amount equivalent 2% of the Contract price including earnest money plus additional security for unbalanced Bids in accordance with the Clause 29.5 of ITB and the provisions of Bihar Financial Rules.
- 31.2 If the performance security is provided by the successful Bidder in the form of a Bank Guarantee receipts in the name of Employer, it shall be issued either (a) at the Bidder's option, by a Nationalized/Scheduled Indian bank within state or (b) acceptable to the Employer.

31.3 Failure of the successful Bidder to comply with the requirements of Sub-Clause 31.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

32. Advance Payment and Security (Not Applicable)

The Employer will provide an Advance Payment on the Contract Price as stipulated in the General Conditions of Contract, subject to maximum amount, as stated in the Contract Data.

33. Corrupt or Fraudulent Practices

33.1 The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract with PHED and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.

33.2 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause and Sub-Clause 14 of the General Conditions of Contract.

G. APPENDIX to ITB

Clause Reference with respect to Section-I.

1. Name of the Employer Executive Engineer, P.H. Division, Munger. [CI. 1.1]
2. The last five years means for this tender

2020__2021
2021__2022
2022__2023
2023__2024
2024__2025
3. The required annual financial turn over amount is Rs. 1475.048 Lakh (50 %)* [CI. 4.5A (a)]
*Attach relevant documents with UDIN no.
4. Experience for Value of work is: Rs 295.010 Lakh (10 % piped water supply scheme)* *Attach relevant documents [CI. 4.5A (b)]
5. Liquid assets is Rs. 737.524 Lakh (25%) and availability of credit facilities is Rs. 295.010 Lakh (10%) [CI. 4.5B(c)]
6. Price level of the financial year 2020-21. [CI. 4.7]
7. The pre-bid meeting will take place in the office of Executive Engineer, P.H. Division, Munger. [CI. 9.1.2]
on 15.06.2026 at 12:00 PM
8. The technical bid will be opened on website www.eproc2.bihar.gov.in on 22.06.2026 at 04:30 PM
9. Address of the Employer Executive Engineer,
P.H. Division, Munger.
10. Identification [CI. 19.2(b)]
Comprehensive operation and maintenance and Special repair of War level Piped Water Supply Schemes based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years.
11. Bids should be submitted only by **Percentage rate contract**.
12. The bid should be uploaded latest by 22.06.2026, at 04:00 PM [CI. 20.1(a)]
13. The bid will be opened on 22.06.2026 at 04:30 PM on www.eproc2.bihar.gov.in [CI. 22]
14. The Bank Guarantee shall be in favour of Executive Engineer, P.H. Division, Munger and Payable at Munger

15. Escalation factors (for the cost of works executed and financial

Figure to a common base value for works completed)

Year before	Multiply factor
One	1.08
Two	1.17
Three	1.26
Four	1.36
Five	1.47

16. Declaration and affidavit shall be submitted for no outstanding dues against electricity bills in existing maintenance contracts of water supply schemes, non compliance of which shall lead to non responsiveness of technical bid.

[Sl.No.34 of NIT]

17. As per the directions of Additional Chief Secretary, Dept. of Home, Govt. of Bihar vide letter no. 29 dtd. 25.01.21, the bidders have to submit recent character certificate otherwise the bid will be summarily rejected.

[Sl.No.33 of NIT]

18. Any disputes arising out of the statutory contract shall be decided by the Bihar Public Works Dispute Redressal Arbitration Tribunal, Patna in accordance with the terms of “ Bihar Public Works Dispute Redressal Arbitration Tribunal Act’2009 including any further revisions.

[Cl. 25 GCC]

.

Annexure I

List of Key Plant & Equipment to be deployed on Works [Reference Cl. 4.5 (B) (a)] List of Key Plant & Equipment to be deployed on PHED Works

[Reference Cl. 4.5 (B) (a)]						
Sl No.	Type of Equipment *	Max Age as on *** (2024-25)	Water Supply Scheme Package Size **			
			Rs. 1 – 5 Crores	Rs. 5 – 30 Crores	Rs. 30 –50 Crores	Above Rs.50 Crores
1	Concrete Mixer	5	1	2	2	3
2	Vibrator	5	2	4	4	6
3	Rotary Drilling / Reverse Rotary / DTH Rig Machine	10	1	1	2	2
4	Compressor	5	1	1	2	2
5	Truck/Tractor with trailer	5	1	1	2	2
7	Hydraulic Excavator	5	-	1	1	2

Annexure II

List of Key Personnel to be deployed on Contract Work									
[Reference Cl. 4.5(B) (b)]									
Sl. No.	Personnel	Qualification	Contract Package Size						
			Rs.5-30 lacs	Rs30-70 lacs	Rs70 Lacs to 2 Crores	Rs.2-10 Crores	Rs10-30 Crores	Rs30-50 Crores	More than 50 Crores
1	Project Manager	B.E. Civil + 10Years Exp. (5 years as Manager in PHED works) or retired E.E. & above of PHED	-	-	-	1	1	1	1
2	Site Engineer	B.E. Civil + 07Years Exp. (3 years as Manager in PHED works) or retired A.E. & above of PHED	-	1	1	1	2	2	3
3	Site Supervisor	B.E. Mech./Civil + 05 Years Exp. Or Dip. Mech./Civil + 07 years Exp. Or or retired J.E. & above of PHED	1	2	4	5	8	10	12

4	Surveyor	B.E. Civil + 03 Years Exp. or Dip. Civil + 05 years Exp.	-	-	1	1	1	1	1
	Total		1	3	6	8	12	14	17

* The Actual Number of equipments to be decided by the Concerned Public Health division/circle/Zone/Department before floating the tender.

**** On the basis of nature of construction work list of key plant & equipments will be decided.*****
Life of machine minus Two Years or Five Years on 1.04.25 whichever is more.

SECTION 2
QUALIFICATION INFORMATION
(To be filled in by Bidder)

QUALIFICATION INFORMATION

The Information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in clause 4 of the Instructions to Bidders. This information will be incorporated in the Contract.

1. For individual Bidders
 - 1.1 Constitution or legal status of Bidder
(Attach copy)
Place of registration :
Principal place of business :
Power of attorney of signatory of Bid
(Attach)
 - 1.2 Total value of Civil Engineering Construction
Work performed in the last 5 (Five) years**
(In Rs. Crore)

2020--2021
2021--2022
2022--2023
2023--2024
2024--2025

- 1.3.1** Work performed as prime contractor, work performed in the past as a nominated sub-contractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last five years.**

Project Name	Name of the Employer*	Description of work	Contract No.	Value of Contract (Rs. In Crore)	Date of issue of work order	Stipulated period of completion	Actual date of completion *	Remarks explaining reasons for delay & work completed)

* Attach certificate (s) from the Engineer (s)-in-Charge

** Immediately preceding the financial year in which bids are received.

ß Attach certificate from Chartered Accountant

- 1.3.2** Quantities of Work executed as prime contractor, work performed in the past as a nominated sub-contractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document provided further that all other qualification criteria are satisfied (in the same name and style) in the last five years :

Year	Name of the work	Name of the Employer	Quantity of work performed								Remarks (indicate contract Ref)
			Construction of High Yield Tube Well/ in Nos.	Supply & Installation of the Treatment Plant	House Connection	Supply & Installation of electric driven pumps complete set.	Distribution Network in Meter	RCC/Steel staging in KL	Stand posts in nos	Other related works	

- 1.4** Information of Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works:

Description of works	Place & State	Contract No.	Name & Address of Employer	Value of Contract (Rs. In Crore)	Stipulated Period of Completion	Value of works remaining to be completion (Rs. In Crore)	Anticipated completed
1	2	3	4	5	6	7	8

(B) Works for which bids already submitted :

Description of works	Place & State	Name & Address of Employer	Estimated value of works (Rs. Crore)	Stipulated date of Completion	Date when decision is expected	Remarks, if any
1	2	4	5	6	7	8

- 1.5** Availability of key items of Contractor's Equipment essential for carrying out the Works [Ref. Clause 4.5 (B) (A)]. The Bidder should list all the information requested below. Refer also to Sub Clause 4.3 (d) of the Instruction to Bidders.

Description of works	Requirement		Availability proposals			Remarks (from whom to be purchased)
	No.	Capacity	Owned/Leased to be procured	Nos./Capacity	Age/Condition	
1	2	3	4	5	6	7

- 1.6** Qualification and experience of key personnel required for administration and execution of the contract attach biographical data.

Position	Name	Qualification	Type of Experience (General)	Years of experience in the proposed position
Project Manager				

Etc.				

1.7 Project sub-contracts and firms involved. [Refer ITB Clause 4.3(k)]

Section of the works	Value of Sub-contract	Sub-Contractor (Name &Address)	Experience in similar work
1	2	3	4

1.8 Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.

1.9 Evidence of access to financial resources to meet the qualification requirements; cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.10 Name, address and telephone, telex and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

1.11 Information on litigation history in which the Bidder is involved.

Other Party (ies)	Employer	Cause of Dispute	Amount involved	Remakes showing Present Status

1.12 Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders.

1.13 Proposed work method and schedule. The Bidder should attach description, drawing and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 & 4.3 (1)]

1.14 Programme

1.15 Quality Assurance Programme

2. Additional Requirements

2.1 Bidders should provide any additional information required to fulfill the requirements of Instructions to the Bidders, if applicable.

(i) Affidavit

(ii) Undertaking

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR
AVAILABILITY OF CREDIT FACILITIES**

(CLAUSE 4.2 (i) OF ITB)

BANK CERTIFICATE

This is to certify that M/s _____ is a reputed company with a good financial standing.

If the contract for the work, namely _____ is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. _____ to meet their working capital requirements for executing to the above contract during the contract period.

(Signature)

Name of Bank

Senior Bank Manager

Address of the Bank

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s _____
_____ has been blacklisted nor has abandoned any work in any government department, in India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3. The undersigned hereby authorizes and request(s) any bank, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department Project implementing agency.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s. _____
_____ would invest minimum cash up to 25% of the value of the work during
implementation of the Contract.

(Signed by an Authorized Officer of the Firm)

Title of Officer

Name of Firm

DATE

SECTION 3

GENERAL CONDITIONS OF CONTRACT

Table of Contents

Clause	Details	Page No.
General		
1	Performance Guarantee	47
1A	Recovery of Security Deposit	47
2	Compensation for delay (Liquidated Damage)	48
2A	Incentive for early completion	48
3	When contract can be determined / Rescinded	48-49
4	Contractor liable to pay compensation even if action not taken under clause 3	49-50
18	Contractor to supply tools & plants etc.	67
20	Min. Wages Act to be complied with	69
21	Work not to be sublet/ Action in case of insolvency	70
23	Changes in firm's constitution to be intimated	70
24	Approval of Engineer Incharge	70
32	Hire of Plant & Machinery	73-75
33	Employment of Technical Staff and employees	75-76
34	Levy / Taxes payable by Contractor	76
37	Termination of Contract on death of contractor	77
38	If relation working in P.H.E.D. than contractor not allowed to tender	77
39	No Gazetted Engineer to work as contractor within two years of retirement	77
41	Release of Security Deposit	78
46	Safety, Security and Protection of the Environment	79
50	Commencement of Works	80
Time Control		
5	Time and Extension for delay	50
45	Cash flow estimate to be submitted.	79
Cost Control		
5A	Minutes of Meeting	51
6	Measurement of work done	51-52
7	Payment on Intermediate certificate to be regarded as advances	52
9	Payment of final bill	53
9A	Payment of contractor's Bills to Banks	53
10B	Secured Advance on Non-Perishable materials/Mobilisation Advance/Plant & Machinery & Shuttering material advance/Interest & Recovery.	54-55
10C	Payment on account of increase in Prices/Wages due to Statutory order(s)	55-56
10CA	Payment on account of increase/decrease in prices of construction materials after receipt of tender.	56-58
10CC	Payment due to Increase/Decrease in Prices/Wages after receipt of tender for works (Time more than 18 eighteen months)	58-62
10D	Dismantled material government property.	62
12	Deviations/Excess item Variations/extent and pricing	63
12.2	Deviation, extra items and pricing	63
12.3	Deviation, Deviated Quantities, Pricing	64

13	Foreclosure of contract due to Abandonment or Reduction in scope of work.	64
14	Cancellation of contract in full or part	65-66
	Details	Page No.
15	Suspension of work	66
16	Action in case work not done as per specification	66-67
22	Compensation	70
25	Settlement of disputes & arbitration	70-71
27	Lump sum Provisions in Tender	71-72
29	With holding and lien in respect of sums due from contractor	72-73
29A	Lien in respect of claims in other Contracts	73
35	Condition of reimbursement of levy/taxes after receipt of the tender.	76
43	Contractor's Risks	78
44	Insurance	78-79
47	Cost of Samples	79
48	Cost of Tests	79
49	Cost of Tests not provided for	79
	Finishing Control	
8	Completion certificate and completion plan	52
8A	Completion plans to be submitted by the contractor	53
17	Contractor liable for damage, defects during maintenance period.	67
40	Return of materials and recovery of excess materials issued.	77-78
51	Substantial Completion of Parts	80
	Quality Control	
10	Materials supplied by Government	53
10A	Materials to be provided by the contractor	53-54
11	Work to be executed in accordance with specification, drawings, orders etc.	63
26	Contractor to indemnify Govt. against Patent Rights.	71
28	Action where no Specifications are specified	72
42	Responsibility of technical staff and employees	78
	Other Condition & Control	
18A	Recovery of compensation paid to workman	67-68
18B	Ensuring payment and amenities to workers if contractor fails	68
19	Labour laws to complied by the Contractor	68
19B	Payment of wages	68-69
30	Unfiltered water supply	73
31	Return of Surplus materials	73
26	Contractor to indemnify govt. against patent Rights	71
28	Action where no specification are specified	72
36	Termination of Contract in case of Imprisonment of contractor	77

40	Return of materials and recovery for excess materials issued.	77-78
42	Responsibility of technical staff and employees	78
52	Force majeure	80
53	Recovery	80

GOVERNMENT OF BIHAR
PUBLIC HEALTH ENGINEERING DEPARTMENT

General Rules & Directions

1. All work proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in News papers and the internet as the case may be.

This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office inviting tender during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately either by one or all the partners or person duly authorized by the partners, it must be signed on behalf of the firm by a person holding the requisite authorizations, such authorizations to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
3. Receipts for payment on account of work done, when executed by a firm, must also be signed by one or all the partners or a duly authorized signatory of the firm.
4. **The bidders is to quote item wise rate. Rate should be quoted both in figures and words. Correction, if any, shall be made by crossing out, initialing, dating and rewriting. There may remain, however, several minor items not specifically mentioned in the break-up but shall be required to complete the job as per scope and specification of works stipulated in the tender document, these items are deemed covered under other components which are mentioned in bill of quantity.**
5. The officer inviting tender or his duly Authorized Officer will open tenders online in the presence of any intending contractors who may be present at the time, In the event of a tender being accepted, a receipt for the earnest money forwarded there with shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-I. In the event of a tender being rejected, the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor remitting the same, without any interest.
6. The Competent Authority inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
7. The memorandum of work tendered for and the schedule of materials to be supplied by the department, if any and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.
8. For works of sensitive nature the tenderers shall sign a declaration under the Official Secrets Act 1923, for maintaining secrecy of the tender documents drawing or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawing given to them.

9. Only item wise quoted rates shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in the rate bid shall be entered in figures and words, and shall be accurately filled in so that there is no discrepancy. If any discrepancy found or the rates which correspond with the amount worked out of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount.
10. In the case of any tender where unit rates of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.
11. In case of ITEM RATE tender, all rates shall be quoted on the tender form. The amount for each item should be worked out and requisite entry shall be done. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written in the end. Unless the rate is in whole rupee and followed by the word 'only' it should invariably be up to two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line. In addition to cost break up of each item of work, The TOTAL RATE should also be quoted both in words and figures.
12. (i) The contractor whose tender is accepted, will be required to furnish performance guarantee of 2 (two percent) including earnest money of the tendered amount within specified period. This guarantee shall be in the form of Govt. Securities or fixed deposit receipt of any scheduled bank, guarantee bonds of any scheduled bank or State Bank of India or Bank guarantee from any schedule bank in the State.
- (ii) The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 8% of the tendered value of the work. The security deposit will be collected by deductions from the running bills including final bill of the contractor at the rates mentioned above.
13. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
14. (i) GST, Royalty, Labour Cess or any other Tax/ Duty on material in respect of this Contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same.
- 14 (ii) TDS for GST/IT/any other tax admissible as per law will be made.
15. The Contractor shall give a list of both Gazetted and Non-Gazetted PHED employees related to him posted in the division, if any.
16. The tender for the work shall not be witnessed by a contractor or contractors who himself/ themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition

would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.

17. The tender for composite work includes piped water supply schemes/ lift irrigation systems. The tenderer apart from being a registered contractor (PHED) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for other works. in the composite tender.

18. The contractor shall submit list of works which are in hand (progress) in the following form:-

Name of work	Name and Particular of Div. where work is	Value of work	Position of work in Progress	Remarks
1	2	3	4	5

19. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineer/Executive Engineer may in his discretion without prejudice to any other right or remedy available in law cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CONDITIONS OF CONTRACT

Definitions:

1. The contract means the document forming the tender and acceptances thereof and the formal agreement executed between the competent authority on behalf of the Governor of Bihar and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings, and instructions issued from time to time from one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires have the meanings, hereby respectively assigned to them: -
 - i) The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
 - ii) The site shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - iii) The Contractor/Operator shall mean the individual, firm, or company, whether incorporate or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm of company.
 - iv) The Engineer-in-Charge means the Engineer/ officer who shall supervise and be in-charge of the work and who shall sign the contract on behalf of the Governor of Bihar as mentioned in Schedule 'F' hereunder.
 - v) Government or Government of Bihar shall mean the Governor of Bihar.
 - vi) Excepted Risk are risks due to riots (other than those on account of contractor employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, any act of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority Provided that the contractor is also to show that he has taken all due precautions to avoid /minimize any adverse effect / damage from the above or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a caused solely due to Government's faulty design of works.
 - vii) Bill of quantity means the price and completed Bill of Quantities form forming part of the Bid.
 - viii) The Defect liability certificate is the certificate issued by Engineer-in-Charge after defect liability period has ended and upon correction of defects by the contractor.
 - ix) The defect liability period will be 60 (sixty) months.
 - x) The intended completion date is the time intended to complete the work by the contractor.
 - xi) The start date is given in the contract data. It is the date when the contractor shall commence execution of the works. It does not necessarily coincide with any of the site possession date. A sub contractor is a person or corporate body who has a contract with the contractor to carry out a part of the construction work in the contract, which includes work on the site.

- xii) A sub contractor is a person or corporate body who has a contract with the contractor to carry out a part of the construction work in the contract, which includes the work on site.
- xiii) Temporary works are works designed, constructed, installed, and removed by the contractor that are needed for construction or installation of the works.
- xiv) Market Rate shall be the rate as decided by the competent authority on the basis of the cost of materials and labor at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits.
- xv) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Government mentioned in Schedule 'F' hereunder, with the amendments thereto issued up to date of receipt of the tender.
- xvi) Department/Owner means PHED, Government of Bihar, which invite tenders on behalf of Governor of Bihar as specified in schedule 'F'
- xvii) Specifications means the specifications followed by PHED/ PWD.
- xviii) Tender value means the value of the entire work as stipulated in the letter award

Scope and Performance

- 3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- 4. Heading and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- 5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates, and such other printed and published documents, together with all drawings as may be forming part of the tender papers, none of these documents shall be used for any purpose other than that of this contract.

Works to be carried out

- 6. The work to be carried out under the Contract shall, except as otherwise provided these conditions, all labor, materials, tools, plants, equipment, and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule-A) shall unless otherwise stated, be held to include wastage on materials, carriage, and cartage, carrying and return of empties, hoisting, setting, fitting, and fixing in position and all other labors necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of Tender

- 7. The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and adjustment of Errors

8. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.
- 8.1 In the case of discrepancy between the schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed: -
- i) Description of Schedule of Quantities.
 - ii) Particular Specification and Special Condition, if any
 - iii) Drawings.
 - iv) PHED/ CPHEEO specification.
 - v) Indian Standard Specifications of B.I.S.
- 8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
- 8.3 Any error in description, quantity, or rate in Schedule of Quantities of any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

Signing of Contract

9. The successful tenderer/contractor, after submitting the performance guarantee i.e., within 21 days of receipt of letter of acceptance shall attend the office of the Engineer-in-Charge for authentication signing and completion of the contractor document and execute the agreement consisting of: -
- i) Drawings.
 - ii) the notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - iii) Standard P.W.D. Form as mentioned in Schedule 'F' consisting of:

Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexure thereto.

CLAUSE OF CONTRACT

CLAUSE - 1

Performance Guarantee

- (i) The contractor shall submit an irrevocable PERFORMANCE GUARANTEE of 2% (Two Percent) of the tendered amount including earnest money in the shape as mentioned in the Bihar Financial Rules or Bank Guarantee, (not withstanding and/or without prejudice to any there provisions in the contract) within period specified in scheduled 'F' from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period as specified in schedule 'F' on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form D.D. of any Scheduled Bank or State Bank of India or Bank Guarantee (for work costing more than Rupees one Crore).
- (ii) The performance Guarantee shall be valid up to 28 days beyond the completion of O&M period.
- (iii) The Engineer-in-Charge shall not make a claim under the Performance guarantee except for amounts to which the Governor of Bihar is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (a) Failure by the contractor to pay Governor of Bihar any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement within 30 days of the service of notice to this effect by Engineer-in-Charge.
 - (b) Failure by the contractor to rectify any defects as defined in the defect liability clause in the schedule - F of contract data to the satisfaction of the Engineer-in-Charge.
- (iv) In the event of the contract being determined or rescinded under provisions of any of the clause/condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Governor of Bihar.

Additional Performance Guarantee

If the lowest bid of the contractor is below the estimated value of the works, then the additional performance guarantee at the following rates (on cumulative basis) will be given by the contractor.

a. Rates below 0 -5 % of the estimated value	0.25 % per percent below
b. Rates below 5 -15 % of the estimated value	0.50 % per percent below
c. Rates below 15 -20 % of the estimated value	1.00 % per percent below
d. Rates below 20 % of the estimated value	2.00 % per percent below

CLAUSE - 1A

Recovery of Security Deposit

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit Government at the time of making any payment to him for work done under the contract to deduct a sum at 8% (eight percent) from the gross amount of each running bill including final bill till full amount of security deposit 10% (ten percent) of agreement value or value of work (whichever is higher) is reached. If value of work exceeds the agreement value, security deposit (10%) will be recovered for the exceeded work.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deduced from, or paid by the sale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by Government on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Banks or Government Securities (if deposited for more than 12 months) endorsed in favour of the Engineer-in-Charge, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the earnest money at the time of tenders will be treated a part of the Security Deposit.

CLAUSE - 2

Compensation for Delay (Liquidated Damage)

If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Superintending Engineer (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified.

- i) Compensation for delay of work @ 2 % per month of delay to be computed on per Day basis.

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the Tendered Value of work or to the Tendered Value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in schedule-F, or the rescheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholding of the amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

The Contractor is required to submit time schedule for completion of work. It will form part of the agreement.

CLAUSE - 2A

Incentive for early completion

In case, the contractor completes the work ahead of scheduled completion time, a bonus @ 1% (one percent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5% (five percent) of the tendered value. The amount of bonus, if payable shall be paid along with final bill after completion of work. Provided always that provision of the Clause 2A shall be applicable only when so provided in 'Schedule F'

CLAUSE - 3

When Contract can be Determined/ Rescined

Subject to the other provisions contained in this clause the Engineer-in-Charge may without prejudice to his any other rights or remedy against the contractor in respect of any delay inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or ill workmanship like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wind up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- iii) if the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date of completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.

- iv) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- v) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- vi) If the contractor commits any acts mentioned in Clause - 21 hereof:
- vii) If the work is not started by the contractor within 1/8th of the stipulated time subject to the maximum of 45 days.

When the Contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the Governor of Bihar shall have powers:

- a) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of Engineer-in-Charge shall be conclusive evidence). Upon such determination or rescission, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government.
- b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined or rescinded as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above course(s) being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A

In case, the work cannot be started due to reasons not within the control of the contractor as decided by Chief Engineer within 1/4th of the stipulated time for completion of work, either party may close the contract. In such eventuality, the Earnest Money deposit and the performance Guarantee of the contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all. the reasons shall be examined by the Superintending Engineer and his decision shall be final and binding.

CLAUSE - 4

Contractor liable to pay compensation even if action not taken under Clause 3

In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause-3 thereof, shall have become exercisable and the same are not exercised the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case a default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work, or any part thereof, paying or allowing for the same in account at the contract rates or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may

remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale be final and conclusive against the contractor.

CLAUSE - 5

Time and Extension for delay

The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in letter of acceptance. If the Contractor commits default in commencing the execution of the work as aforesaid, Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the security deposit absolutely.

5.1 As soon as possible after the contract is concluded the Contractor shall submit a Time & Progress Chart and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the work. It shall indicate the forecast of the dates of commencement and completion of various trades or sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and Contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work **as per milestone given in schedule 'F'**

5.2 If the work(s) be delayed by.

- i) Force majeure, or
- ii) Serious loss or damage by fire, or Civil commotion, local.
- iii) Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
- iv) Non-availability of stores, which are the responsibility of Government to supply, or
- v) Non-availability or break down of tools and Plant to be supplied or supplied by Government, or
- v) Any other cause which, in the absolute discretion of the authority mentioned in Schedule 'F' is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

5.3 Request for the rescheduling of Milestones and extension of time, to be eligible for consideration, shall be made by the contractor in writing within fourteen days of the happening of the hindering event causing delay on the prescribed form. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

5.4 In any such case the authority mentioned in Schedule 'F' may give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.

5.5 The basic centerlines, reference points and benchmarks will be fixed by the department. The contractor shall establish at his own cost at suitable points, additional reference lines and bench marks as may be necessary and instructed by the engineer-in-charge. The contractor shall remain responsible for the sufficiency and accuracy of all the bench marks and reference lines.

CLAUSE 5 - A

Minutes of Meeting

The Engineer may require the contractor to attend a progress review meeting during execution of work. The Engineer shall record the minutes of the meeting and provide a copy to the Contractor for compliance. These minutes will be a part of evidence in case of any request for extension of time or impunities action against the contractor.

CLAUSE - 6

Measurement of Work Done

Engineer-in-Charge shall, except as otherwise provided, ascertain, and determine measurement and the value in accordance with the contract of work done.

All measurement of all items having financial value shall be entered in Measurement Book so that a complete record is obtained of all works perform under the contract.

All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative at least once in a month during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance labor and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of India Standards and if for any item no such standard is available then a mutually agreed method as approved by the department shall be followed.

The contractor shall give not less than seven days notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimension thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement defects noticed till completion of the defect's liability period.

CLAUSE - 7

Payment on intermediate Certificate to be Regarded as Advances

No payment shall be made for work for **less than the estimated work of Rs. 2.5 lacs till the whole of the work shall have been completed and certificate of completion given.** For works estimated to cost over Rs. 2.5 lacs the interim or running account bill shall be submitted by the contractor for the work executed based on such recorded measurements on the format of the Department in triplicate on or before the date or every month fixed for the same by the Engineer-in-Charge. The Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to the Engineer-in-Charge or his Assistant Engineer together with the account of the material issued by the department, or dismantled materials, if any. In the case of works outside the headquarters of the Engineer-in-Charge the period of ten working days will be extended to fifteen working days.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine, or affect in any way power of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided as per clause - 2, without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

CLAUSE - 8

Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within fifteen days of the receipt of such notice the Engineer-in-Charge shall inspect the work and if there is no defect in the work shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of execution thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work the Engineer-in-Charge may at the expense of the contractor remove such scaffolding surplus

materials and rubbish etc. and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of the scaffolding or surplus materials aforesaid except for any sum actually released by the sale thereof.

CLAUSE - 8 A

Completion plans to be Submitted by the Contractor

The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) 1972 and (Par-II External) 1974 as applicable within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs. 15,000 (Rs. Fifteen thousand only) as may be fixed by the Superintending Engineer concerned and in this respect the decision of the Superintending Engineer shall be final and binding on the contractor.

The Contractor is required to submit completion plan of the whole scheme after its completion.

CLAUSE - 9

Payment of Final Bill

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period specified herein under, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Assistant Engineer, complete with account of materials issued by the Department and dismantled materials.

- | | | | |
|-----|---|---|----------|
| i) | If the Tendered value of work is upto Rs. 1 crore | : | 2 months |
| ii) | If the Tendered value of work exceeds Rs. 1 crore | : | 4 months |

CLAUSE - 9A

Payment of Contractor's Bill to Banks

Payments due to the contractor may, if so desired by him, be made to his bank instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge (1) an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by Government or his signature on the bill or other claim preferred against Government before settlement by the Engineer-in-Charge of the account or claim by payment to the bank. While the receipt given by such banks shall constitute a full and sufficient discharge for the payment, the contractor shall wherever possible present his bills duly receipted and discharges through his bankers.

Nothing herein contained shall operate to create in favor of the bank any rights or equities vis-a-vis the Governor of Bihar.

CLAUSE - 10

Materials supplied by Government

No material will be supplied by the Govt.

CLAUSE - 10 A

Materials to be provided by the Contractor

The contractor shall, at his own expense, provide all materials, required for the works. The contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in Charge that the materials so comply. The Engineer-in-Charge shall within fifteen days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether sample are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval fresh samples complying with the

specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all time have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss for damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default the Engineer- In-Charge may cause the same to be supplied and all costs which they attend such removal and substitution shall borne by the Contractor.

CLAUSE - 10 B (NOT APPLICABLE)

Secured Advance on Non- perishable Materials

i) The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work up to 75% of the assessed value of any materials which are in the opinion of the Superintending Engineer nonperishable, non-fragile and non combustible and are in accordance with the contract and on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which advance has been made under this sub-clause are incorporated in the work the amount of such advance shall be recovered/deducted from the next payment made under any or the clause or clauses of this contract.

Mobilization Advance

ii) Deleted

Plants & Machinery & Shuttering Material Advance

Deleted

Interest & Recovery

iii) The mobilization advance and plant and machinery advance in (ii) & (iii) above bear simple interest and should be equal to the prevailing rate of interest charged by the bank as mentioned in contract date schedule 'F' and shall be calculated from the date of payment to the date of recovery both days inclusive, on the outstanding amount of advance; Recovery of such sums advanced shall be made by the deduction from the contractor's bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rate percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid together with interest due on the entire outstanding amount up to the date of the installment.

iv) If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Chief Engineer.

v) The said bank guarantee for advances shall initially be made for the full amount and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest.

vi) Any materials including tools, plants, equipments etc brought to the site shall not be removed from the sites without the written permission of the Engineer-in-Charge.

CLAUSE - 10 C (NOT APPLICABLE)

Payment on Account of increase in prices/ Wages due to Statutory Order(s)

If after submission of the tender the price of any material incorporated in the works (not being a material supplied from the Engineer-in-Charge's stores in accordance with clause 10 thereof) and/or wages of labor increases as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes in sales tax) and such increase in the price and/or wages prevailing at the time of the last stipulated date for receipt of the tenders including extensions if any for the work, and the contractor thereupon necessarily and properly pays in respect of that material (incorporated in the works) such increased price and / or in respect of labor engaged on the execution of the work such increased wages, then the amount of the contract shall accordingly be varied and provided further that any such increase shall not be payable if such increase has become operative after the stipulated date of completion of the work in question.

If after submission of the tender, the price of any material incorporated in the works (not being a material supplied from the Engineer-in-Charge's stores in accordance with clause 10 thereof) and/or wages of labor is decreased as a direct result of the coming into force of any law or statutory rules or order (but not due to any changes in sales tax) and such decrease in the prices and/or wages prevailing at the time of receipt of the tender for the work. The government shall in respect of materials incorporated in the works (not being materials supplied from the Engineer-in-Charge's stores in accordance with Clause-10 hereof) and / or labor engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the price of materials and/or wages of labor on the coming into force of such law, statutory rule or order.

The contractor shall, for purpose of this condition, keep such books of account and other documents as are necessary to show the amount of any increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of the Government, and further shall, at the request of the Engineer-in-Charge may require any documents so kept and such other information as the Engineer-in-Charge may require.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such material and/or wages of labor, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

CLAUSE - 10 CA

Payment on Account of increase/ decrease in Prices of Construction materials after receipt of tender

If after submission of the tender, the price of cement or steel reinforcement bars incorporated in the works (not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) increase(s) beyond the price(s) prevailing at the time of the last stipulated date for receipt of tenders (including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such increase shall not be payable if such increase has become operative after the stipulated date of completion of work in question.

If after submission of the tender, the prices of cement and/or steel reinforcement bars incorporated in the works (not being a material stipulated from the Engineer-in-Charge's stores in accordance with the clause 10 thereof) is decreased. Government shall in respect of these materials incorporated in the works (not being materials supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) be entitled to deduct from the dues of the contractor such amount as shall be equivalent to the difference between the prices of Cement and/or Steel reinforcement bars as prevailed at the time of last stipulated date for receipt of tenders including extensions if any for the work.

The increase/decrease in prices shall be determined by the All-India Wholesale Price Indices for Cement and Steel (bars and rods) as published by Economic Advisor to Government of India, Ministry of Commerce, and Industry.

It shall not be payable/ deductible, if such increase / decrease has become operative after the stipulated date of completion of work in question.

The amount of the contract shall accordingly be varied for cement or steel reinforcement bars will be worked out as per the formula given below: –

Adjustment for cement component

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

$$V_0 = 0.85 \times P_0 / 100 \times R \times (C_1 - C_0) / C_0$$

V_0 = increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

R = Value of the work.

C_0 = The all-India wholesale price index for cement on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

C_1 = The all-India average wholesale price index for cement for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_0 = Percentage of cement component of the work.

Adjustment for Steel Component

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

$$V_s = 0.85 \times P_s / 100 \times R \times (S_1 - S_0) / S_0$$

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

R = Value of the work

S_0 = The all-India wholesale price index for steel (Bars and Rods) on 25 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

S_1 = The all-India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of Industrial Development, New Delhi.

P_s = Percentage of Steel component of the work.

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

Adjustment for C.I. pipes and specials component

- (iii) Price adjustment for increase or decrease in the cost of C.I. pipes and specials procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_{CI} / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates of pig iron.

R = Value of the work

S_0 = Basic rate of Pig Iron on 25 days preceding the date of opening of Bids as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking).

S_1 = Rate of Pig Iron for the month under consideration as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking)

P_{CI} = Percentage of C.I. component of the work.

Adjustment for D.I. pipes and specials component

- (iv) Price adjustment for increase or decrease in the cost of D.I. pipes and specials procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times 0.65 \times P_{DI} / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in rates in the rates of pig iron

R = Value of the work

S_0 = Basic rate of Pig Iron on 25 days preceding the date of opening of Bids as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking).

S_1 = Rate of Pig Iron for the month under consideration as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking).

P_{DI} = Percentage of D.I. component of the work.

Adjustment for M.S./G.I. Pipes & Fitting component

- (v) Price adjustment for increase or decrease in the cost of M.S./G.I. Pipes & Fitting procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_{GI} / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in rates of Pig Iron.

R = Value of the work

- S_0 = Basic rate of HR Coils/ Plates on 25 days preceding the date of opening of Bids as issued by SAIL.
- S_1 = Rate of HR Coil/Plate for the month under consideration as issued by SAIL.
- P_{GI} = Percentage of G.I. component of the work.

CLAUSE - 10 CC

Payment due to increase/ decrease in Price/Wages after receipt of tender (Time of completion more than 18 Months)

Contract price shall be adjusted for increase or decrease in rates and price of labor, materials, fuels, and lubricants in accordance with the following principles and procedures and as per formula given in the contract data:

- (a) The price adjustment shall apply for the work done from the start date given in the contract data up to end of the initial intended completion date of extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.
- (b) Following expressions and meanings are assigned to the work done during each month.

R = Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.
- (c) To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

The formulas (e) for adjustment of prices are:

Adjustment for labor component

- (i) Price adjustment for increase or decrease in the cost due to labor shall be paid in accordance with the following formula.

$V_L = 0.85 \times P_1 / 100 \times R \times (L_1 - L_0) / L_0$

V_L = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local labor.

R = Value of the work

L_0 = the consumer price index for industrial workers for the State on 28 days preceding the date of opening of Bids as published by labor Bureau, Ministry of Labor, Government of India.

L_1 = The consumer price index for industrial workers for the State for the under consideration as published by labor Bureau, Ministry of labor, Government of India.

P_1 = Percentage of labor component of the work.

Adjustment for cement component

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

$$V_0 = 0.85 \times P_0 / 100 \times R \times (C_1 - C_0) / C_0$$

V_0 = increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

R = Value of the work

C_0 = The all-India wholesale price index for cement on 28 days preceding the date of opening of Bids as published by the Ministry of industrial Development, Government of India, New Delhi.

C_1 = The all-India average wholesale price index for cement for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_c = Percentage of cement component of the work.

Adjustment for Steel Component

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

$$V_s = 0.85 \times P_s / 100 \times R \times (S_1 - S_0) / S_0$$

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

R = Value of the work

S_0 = The all-India wholesale price index for steel (Bars and Rods) on 25 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

S_1 = The all-India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of industrial Development, New Delhi.

P_1 = Percentage of labor component of the work.

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

Adjustment of POL (fuel and lubricant) component

- (iv) Price adjustment for increase or decrease in the cost of POL (fuel and lubricant) shall be paid in accordance with the following formula:

$$V_1 = 0.85 \times P_1 / 100 \times R \times (F_1 - F_0) / F_0$$

- V_1 = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants.
- R = Value of the work
- F_0 = The official retail price of High-Speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the day 28 days prior to the date of opening of Bids.
- F_1 = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration.
- P_1 = Percentage of fuel and lubricants component of the work.
- Note: For the application of this clause, the price of High-Speed Diesel Oil has been chosen to represent fuel and lubricants group.

Adjustment for Plant and Machinery Spares component

- (v) Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the Contractor shall be paid in accordance with the following formula:

$$V_p = 0.85 \times P_p / 100 \times R \times (P_1 - P_0) / P_0$$

- V_p = Increase or decrease in the cost of work during the month under consideration due to changes in rates for plant and machinery spares.

- R = Value of the work

- P_0 = The all-India wholesale price Index for heavy machinery and parts on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi.

- P_1 = The all-India average wholesale price index for heavy machinery and parts for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

- P_1 = Percentage of plant and machinery spares component of the work.

- Note: For the application of this clause, Index of Heavy machinery and Parts has been chosen to represent the Plant and Machinery Spares group.

Adjustment for C.I. pipes and specials component

- (vi) Price adjustment for increase or decrease in the cost of C.I. pipes and specials procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_{CI} / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates of pig iron.

R = Value of the work

S_0 = Basic rate of Pig Iron on 25 days preceding the date of opening of Bids as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking).

S_1 = Rate of Pig Iron for the month under consideration as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking)

P_{CI} = Percentage of C.I. component of the work.

Adjustment for D.I. pipes and specials component

- (vii) Price adjustment for increase or decrease in the cost of D.I. pipes and specials procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times 0.65 \times P_{DI} / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in rates in the rates of pig iron

R = Value of the work

S_0 = Basic rate of Pig Iron on 25 days preceding the date of opening of Bids as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking)..

S_1 = Rate of Pig Iron for the month under consideration as issued by Kudermukh Iron Ore Company Ltd (A Gol Undertaking).

P_{DI} = Percentage of D.I. component of the work.

Adjustment for M.S./G.I. Pipes & Fitting component

- (viii) Price adjustment for increase or decrease in the cost of M.S./G.I. Pipes & Fitting procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_{GI} / 100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in rates of Pig Iron.

R = Value of the work

S_0 = Basic rate of HR Coils/ Plates on 25 days preceding the date of opening of Bids as issued by SAIL.

S_1 = Rate of HR Coil/Plate for the month under consideration as issued by SAIL.

P_{GI} = Percentage of G.I. component of the work.

Adjustment of other materials component

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

$$V_m = 0.85 \times P_m / 100 \times R \times (M_1 - M_0) / M_0$$

V_m = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen, and POL.

R = Value of the work

M_0 = The all-India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Industrial Development, Government of India, New Delhi.

M_1 = The all-India wholesale price index (all commodities) for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_1 = Percentage of local material component (other than cement, steel, bitumen, and POL) of the work.

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

1.	labor – P_1	%
2.	Cement – P_c	%
3.	Steel – P_s	%
4.	POL – P_1	%
5.	Plant & Machinery Spares – P_p	%
6.	Other materials – P_m	%
	Including pipes etc.	Total – 100%

- (vii) In contract where clause 10CA is applicable, this clause 10CC will not be applicable and in contract where this clause 10CC is applicable previous clause 10CA will not be applicable.

CLAUSE - 10 D

Dismantled Material Govt. Property

The contractor shall treat all materials obtained during dismantling of structure, excavation of the site for a work, etc. as Government's property and such materials shall be disposed off to the best advantage of Government according to the PWD codal provision.

CLAUSE - 11

Work to be Executed in Accordance with Specifications, Drawings, Orders etc.

The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specification, designs, drawings and instruction as are not included in the standard specifications of Public Health Engineering Department specified in Schedule 'F' or in any Bureau of Indian Standard

or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labor and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability, and safety of all the works and methods of construction.

CLAUSE - 12

Deviation/ Variations Extent and Pricing

The Engineer-in-Charge (As per codal provision) shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge after approval from competent authority and such alterations omissions additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered be extended, if requested by the contractor, as follows:

- i) In the proportion which the additional cost of the altered, additional, or substituted work, bears to the original tendered value plus.
- ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge after approval from competent authority.

Deviation, extra items and Pricing

12.2 In the case of extra item(s) the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Engineer-in-Charge after approval from competent authority shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates as per power delegated in PWD Code and on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

Deviation Substituted items, Pricing

In the case of substituted items, the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the aforesaid Para.

(a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

Deviation, Deviated Quantities, Pricing

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in Schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates as per power delegated in PWD/ CPHEEO Code and on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule 'F' and the Engineer-in- Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of receipt of the notice, revise the rates as per power delegated in PWD/CPHEEO Code for the work in question within one month of expiry of the said period of fifteen days having regard to the market rates or current schedule of rate.

12.4 The contractor shall send to the Engineer-in-Charge once every three months an up-to-date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge after approval from competent authority which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right.

12.5 For the purpose of operation of Schedule 'F' the following works shall treated as works relating to foundation:

- i) For buildings, compound walls plinth level or 1.2 meters (4 feet) above ground level whichever is lower excluding items of flooring and D.P.C. but including base concrete below the floors.
- ii) For abutments, piers, retaining walls of culverts and bridges, walls of water reservoirs the bed of floor level.
- iii) For retaining walls where floor level is not determinate 1.2 meters above the average ground level or bed level.
- iv) For Roads all items of excavation and filling including treatment of sub-base.

12.6 Any operation incidental to or necessarily has to be in contemplation of tenderer while filing tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE - 13

Foreclosure of Contract due to Abandonment or Reduction in Scope of Work

If at any time after acceptance of the tender Government shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates for works executed at site only.

CLAUSE - 14

Cancellation of contract in full or part

If the contractor:

- (i) At any time makes default in proceeding with works or any part of the work with due diligence and continues to do so after a notice in writing of 7 days from the Engineer-in-Charge; or
- ii) Commits default to comply with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or

iii) Fails to Complete the works or items of work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or

iv) Shall offer or give or agree to give to any person in Government service or to any other person on his behalf any gift or consideration of any kind an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Government; or

v) Shall enter into a contract with Government in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Accepting Authority/Engineer-in-Charge; or

vi) Shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering; or

vii) Being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit or his creditors; or

viii) Being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or

ix) Shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or

x) Assigns, transfers, sublets (engagement of labor on a piece-work basis or of labor with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Competent Authority;

The Competent Authority may, without prejudice to any other right or remedy which shall have accrued or shall accrues hereafter to Government, by a notice in writing to cancel the contract as whole or only such items of work in default from the Contract.

The Engineer-in-Charge shall on such cancellation by the Competent Authority have powers to:

(a) Take possession of the site and any materials, constructional plant, implements stores, etc, thereon; and/or

(b) Carry out the incomplete work by any means at the risk and cost of the contractor.

On cancellation of the contract in full or in part, the Engineer-in-Charge shall determine what amount, if any, is recoverable from the contractor for completion of the works or part of the works or in case the works or part of the works is not to be completed, the loss of damage suffered by Government. In determining the amount, credit shall be given to the contractor for the value of the work executed by him up to the time of cancellation, the value or contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

Any excess expenditure incurred or to be incurred by Government in completing the works or part of the works or the excess loss or damages suffered or which may be suffered by Government as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Government in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors unused materials, constructional plant, implements, temporary

buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance is outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract.

Any sums in excess of the amounts due to Government and unsold materials, constructional plant, etc. shall be returned to the contractor, provided always that if cost or anticipated cost of completion by Government of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

CLAUSE - 15

Suspension of work

i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof, for any of the following reasons:

- a) On account of any default on the part of the contractor or;
- b) For proper execution of the works or part thereof for reasons other than the default of the contractor; or
- c) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

ii) If the suspension is ordered for reasons (b) and (c) in sub-Para (i) above, the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25% for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;

CLAUSE - 16

Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Engineer-in-Charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Control Organization of the Department and of the Cabinet (Technical) Vigilance, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer-in-Charge or his higher authority or his authorized subordinates in charge of the work or to the Cabinet (Technical) Vigilance or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or article provides by him for the execution of the work which are unsound or if a quality inferior to that contracted or otherwise not in accordance with the contract the contractor shall, on demand in writing which shall be made within the period specified in schedule – F of contract data from the Engineer-in-Charge specify in the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and

provide other proper and suitable materials or articles at his own charge and cost. In the event of the contractor failing to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the competent authority may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure and incidental items rectified, or removed and re-executed at the risk and cost of contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

CLAUSE - 17

Contractor Liable for Damages, defects during maintenance period

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road curb, fence enclosure, water pipe, cables, drains, electric or telephone post or wired, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within defect liability period after a certificate final or otherwise of its completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of defect liability period after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

CLAUSE - 18

Contractor to Supply tools & Plants etc

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other document forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighting and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing the same may be provided by the Engineer-in-Charge at cost to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of sufficient portions thereof.

CLAUSE - 18 A

Recovery of Compensation paid to Workman

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensations Act, 1923, Government is obliged to pay compensation to a workman employed by the contractor, in execution of the works. Government will recover from the contractor the amount of the compensation so paid; and without prejudice to the right of the Government under sub-section (2) of section 12, of the said Act, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise. Government shall not be bound to contest any claim made against it under sub-section (1) Section 12, of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs for which Government might become liable in consequence of contesting such claim.

CLAUSE - 18 B

Ensuring payment and Amenities to Workers if Contractor fails

In every case in which by virtue of the provisions of the Contract labor (Regulation and Abolition) Act, 1970, and of the Contract labor (Regulation and Abolition) Central Rules, 1971, Government is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19 H or under the P.W.D. Contractor's labor Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by P.W.D. Contractors, Government will recover from the contractor the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Government under sub-section (2) of Section 20, and sub-section (4) of Section 21, of the Contract labor (Regulation and Abolition) Act, 1970, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise Government shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Government full security for all costs for which Government might become liable in contesting such claim.

CLAUSE - 19

Labor Laws to be complied by the Contractor

The contractor shall obtain a valid license under the State labor Act, and the Contract labor (Regulation and Abolition) Central rules 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfill these requirements shall attract the penal provisions of the contract arising out of the resultant non-execution of the work.

CLAUSE - 19 A

No labor below the prescribed age shall be employed on the work.

CLAUSE - 19 B

Payment of Wages

i) The contractor shall pay to labor employed by him either directly or through sub-contractors, wages no less than fair wages as defined in P.W.D. Contractor's labor Regulations or as per the provisions of the Contract labor (Regulation and Abolition) Act 1970 and the contract labor (Regulation and Abolition) Central Rules, 1971 wherever applicable.

ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labor indirectly engaged on the work including any labor engaged by his sub-contractors in connection with the said work, as if the labor had been immediately employed by him.

iii) In respect of all labor directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Public Works Department contractor's labor Regulations made by Government from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract labor (Regulation and Abolition) Act, 1970, and the Contract labor (Regulation and Abolition) Central Rules, 1971, wherever applicable.

iv) a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.

b) Under the provision of Minimum Wages (Central) Rules 1950, the contractor is bound to allow to the labors directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labors and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned.

v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Act, 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.

vi) The contractor shall indemnify and keep indemnified Government against payments to be made under and for the observance of the laws aforesaid and the P.W.D. Contractor's labor Regulations without prejudice to his right to claim indemnity from his sub-contractors.

vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

viii) Whatever is the minimum wage for the time being, or if the wage-payable higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.

ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE -19 C

In respect of all labor directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per P.W.D. Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid he shall be liable to pay a penalty of Rs. 200/- for each default and in addition the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE - 20

Minimum wages Act to be complied with

The contractor shall at least pay and comply with all the provisions of the Minimum wages Acts and rules framed there under other labor laws related to contract labor.

CLAUSE - 21

Work not to be sublet, Action in case of insolvency

The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised in the employ of Government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge on behalf of the Governor of Bihar shall have power to adopt the courses specified in Clause 3 hereof in the interest of Government and in the event of such course being adopted the consequences specified in the said Clause 3 shall ensure.

CLAUSE - 22

Compensation

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

CLAUSE - 23

Changes in firm's Constitution to be intimated

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 thereof and the same action may be taken, and the same consequences shall ensure as provided in the said Clause 21.

CLAUSE - 24

Approval of Engineer in Charge

As works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE - 25

Settlement of Disputes & Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in-before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim right matter or thing whatsoever in any way arising out of or relating to contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter.

Except where the decision has become final, binding, and conclusive in terms of Sub Para (i) above disputes or difference shall be decided by the Bihar Public Works Dispute Redressal Arbitration Tribunal, Patna in accordance with the terms of "Bihar Public Works Dispute Redressal Arbitration Tribunal Act'2009 including any further revisions.

It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date the issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

All arbitration shall be held at PATNA and at no other place.

CLAUSE - 26

Contractor to indemnify Govt. against Patent Rights

The contractor shall fully indemnify and keep indemnified the Governor of Bihar against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article of part thereof included in the contract. In the event of any claims made under the action brought against Government in respect of any such matter as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the Governor of Bihar if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

CLAUSE - 27

Lump sum Provisions in Tender

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge capable of measurement, The Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

CLAUSE - 28

Action where no specifications are specified

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications, Indian Road Congress for road works and Indian Building Congress for building works or any central government agency including CPWD specification and CPHEEO manual as per direction of E / I. In case there are no such specifications in above codes/manuals the work shall be carried out as per manufacturers specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

CLAUSE - 29

With -holding and lien in respect of sums due from contractor

i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the Government shall be entitled to with hold and also have a lien

to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge of the Government shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or if no security has been taken from the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and have a lien to retain to the extent of payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the Government or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or Government will be kept withheld or retained as such by the Engineer-in-Charge or Government till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the Government shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

ii) Government shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for Government to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Government to the contractor, without any interest thereon whatsoever.

CLAUSE - 29 A

Lien in respect of claims in other contracts

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the Government or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or Government or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge of the Government or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge of the Government will be kept withheld or retained as such by the Engineer-in-Charge or the Government till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall

have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE - 30

Unfiltered water supply

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

- i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.
- ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

CLAUSE - 31

Return of Surplus Material

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of Government either by issue from Government stocks or purchase made under orders or permits or licenses issued by Government the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the Government and return, if required by the Engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition the contractor shall in addition to throwing himself open to action for contravention of the term of the license or permit and/or for criminal breach of trust, be liable to Government for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE - 32

Hire of Plant & Machinery

- i) The contractor shall arrange at his own expense all tools, plant, machinery, and equipment (hereinafter referred to as T & P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T & P on hire from the T & P available will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-Charge. In such a case all the conditions hereunder for issue of T & P shall also be applicable to such T & P as is agreed to be issued.
- ii) Plant and Machinery when supplied on hire charges in Schedule 'C' shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- iii) The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the Department.
- iv) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over up to and inclusive of the date of the return in good order even though the same may not

have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in-Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown occurs before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause the decision of the Superintending Engineer shall be final and binding on the contractor.

v) The hire charges shown above are for each day of 8 hours (inclusive of the one-hour lunch break) or part thereof.

vi) Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.

vii) Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period or 8 hours a day, in that case the hourly hire charges for overtime to charge (1/8th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.

viii) The contractor shall release the plant and machinery every seventh day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing/wash out irrespective of the period employed in servicing.

ix) The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labor and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-Charge the work or a portion of work for which the same was issued is completed.

x) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorized agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor.

xi) In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.

xii) The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to him failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.

xiii) The contractor will be exempted for levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work provided Government plant and machinery in question have, in fact remained idle with the contractor because of the suspension.

xiv) In the event of the contractor not requiring any item of plant and machinery issued by Government though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without in any way affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

CLAUSE - 33

Employment of Technical Staff and employees

Contractors Superintendence, Supervision, Technical Staff & Employees

i) The contractor shall provide all necessary superintendence during execution of the work and as along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor along with bidding of the tender, intimate in writing to the Engineer-in-Charge the name, qualifications, experience, age, address, and other particulars along with certificates, of the technical representative to be in charge of the work. If there is any change then the new incumbents' qualifications and experience shall not be lower than specified in Schedule in I.T.B. (Annexure-2). The Engineer-in-Charge shall within 15 days of issue of letter of acceptance intimate in writing his approval or otherwise it is deemed to be approved. Any such approval may at any time be withdrawn and in case of such withdrawal the contractor shall appoint another such representative according to the provisions of this clause. Decision of the tender accepting authority/Superintending Engineer shall be final and binding on the contractor in this respect. Technical staff shall be available at site within fifteen days of start of work.

If the contractor (or any partner in case of firm/company) himself has such qualifications, it will not be necessary for the said contractor to appoint such a principal technical representative but the contractor shall designate and appoint a responsible agent to represent him and to be present at the work whenever the contractor is not in a position to be so present. All the provisions applicable to the principal technical representative under the Clause will also be applicable in such a case to contractor or his responsible agent. The principal technical representative and/or the contractor or his responsible authorized agent shall be actually available at site at least two working days every week, these days shall be determined in advance and also during recording of measurement of works and whenever so required by the Engineer-in-Charge by a notice as aforesaid and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative in the site order book and in token of acceptance of measurements. There shall be no objection if the representative/agent looks after more than one work and not more than three works in the same station provided these details are disclosed to the Engineer-in-Charge and he shall be satisfied that the provisions and the purpose of the clause are fulfilled satisfactorily.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative or agent is effectively appointed or is effectively attending or fulfilling the provision of this clause, a recovery shall be effected from the contractor as specified in Schedule 'F' and the decision of the Engineer-in-Charge as recorded in the site order book and measurement recorded in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint a suitable technical representative or responsible agent and if such appointed persons are not effectively present or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as a suitable agent is appointed and the contractor shall submit a certificate of employment of the technical

representative/responsible agent along with every on account bill/fixed bill and shall produce evidence if at any time so required by the Engineer-in-Charge.

ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work. The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties of whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

CLAUSE - 34

Levy/Taxes/Duties by Contractor

i) GST or any other taxes, duties etc. on materials in respect of this contract shall be payable by the contractor according to law in effect.

ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red earth, moorum, sand, chips, bajri, stone, kankar and pea gravels etc. from local authorities.

iii) If pursuant to or under any law, notification or order any royalty, cess of the hike becomes payable to the Government of India and does not at any time become payable by the contractor to the State Government / Local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from the dues of the contractor.

CLAUSE - 35

Conditions for reimbursement of levy / taxes if levied after receipt of tenders

i) All tendered rates shall be inclusive of all taxes/duties and levies payable under respective statutes. However, pursuant to the Constitution (46th Amendment) Act. 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes / levies the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the Chief Engineer (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.

ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Government and/or the Engineer-in-Charge and further shall furnish such other information/document as the Engineer-in-Charge may require from time to time.

iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (Forty Sixth Amendment) Act 1982, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE - 36

Termination of Contract in case of imprisonment of Contractor

If the contractor is imprisoned, becomes insolvent compound with his creditors, has a receiving order made against him or carries on business under a receiver for the benefit of the creditors or any of them, or being a partnership firm becomes dissolved, or being a company or corporations goes into liquidation or commences to be wound up no being a voluntary winding up for the purpose only of amalgamation or reconstitution the department shall be at liberty.

(a) To give such liquidator, receiver, or other person in whom the contract may become vested, the option of carrying out the contract or a portion thereof to be determined by the department, 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 action as provided in the relevant clauses of the contract.

CLAUSE - 37

Termination of Contract on death of Contractor

Without prejudice to any of the rights or remedies under this contract if the contractor dies, the Divisional Officer on behalf of the Governor of Bihar shall have the option of terminating the contract without compensation to the contractor after the affidavit of his/ their legal heir/heirs that they are not going to be in this profession in future.

CLAUSE - 38

If relative working in any work & Deptt. then the Contractor not allowed to tender

The contractor shall not be permitted to tender for works in the Concerned Division (responsible for award and execution of contracts) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Superintending Engineer and Assistant Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted Officer in the Any Work & Deptt. or in the concerned department. Any breach of this condition by the contractors of this Department shall lead to blacklisting. If the contractor is registered in any other department, he shall be debarred from tendering in P.H.E.D. for any breach of this condition.

Note: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in law.

CLAUSE - 39

No -Gazetted –Engineer to work as Contractor within two years of retirement

No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering of Administrative duties in an Engineering Department of the Government of Bihar shall work as a Contractor or employees of a contractor for a period of two years after his retirement, from Government Service without the previous permission of State Government in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained said permission prior to engagement in the contractor's service, as the case may be.

CLAUSE - 40 (NOT APPLICABLE)

Return of material and recovery for excess material issued

i) After completion of the work and also at any intermediate stage in the event of non reconciliation of materials issued, consumed and in balance (see Clause 10) theoretical quantity of materials issued by the Government for use in the work shall be calculated on the basis and method given hereunder.

a) Quantity of cement shall be calculated on the basis of quantity of cement required different items of work as shown in the Schedule of Rates mentioned in-Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement are not available in the above-mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.

b) Theoretical quantity of steel reinforcement of structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappages, chairs etc., plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.

c) For any other material as per actual requirements.

ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in-Charge within fifteen days of the issue of written notice by the Engineer-in-Charge to this effect shall be recovered at the rates specified in Schedule 'F' without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor. For non scheduled items, the decision of the Superintending Engineer regarding theoretical quantities of materials, which should have been actually used, shall be final and binding on the contractor.

vii) The said action under this clause is without prejudice to the right of the Government to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

Clause - 41

Release of Security Deposit

On completion of the whole of the work, security or additional performance security will be returned after completion of defect liability period and after the Engineer has certified that all defects notified by him to the contractor before the end of this period have been corrected and also after recovery of any dues.

Clause - 42

Responsibilities of Technical Staff and Employees

Technical officers / staff deployed by the Contractor at any construction site will also be responsible for inferior quality/poor performance of any work and his name will be circulated to all works division of the P.H.E.D. to debar from any other site, if his name is being proposed by other contractor.

Clause - 43

Contractor's Risks

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

Clause - 44

Insurance

The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant and Materials;
- (b) loss of or damage to Equipment;

- (c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
- (d) personal injury or death.

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.

CLAUSE - 45

Cash flow Estimate to be submitted

The Contractor shall, within the time stated in special Conditions of contract after the date of the Letter of Acceptance, provide to the Engineer for his information a detailed cash flow estimate, in quarterly periods, of all payments to which the Contractor will be entitled under the Contract and the Contractor shall subsequently supply revised cash flow estimates at quarterly intervals, if required to do so by the Engineer-in-Charge.

CLAUSE - 46

Safety, Security, and protection of the Environment

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- (a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site (so far as the same is under his control) and the Works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons.
- (b) Provide and maintain at his own cost all lights, guards, fencing, warning signs and watchmen and where necessary or required by the Engineer or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others, and
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

CLAUSE - 47

Cost of Samples

All samples shall be supplied by the Contractor at his own cost if the supply thereof is clearly intended by or provided for in the Contract.

CLAUSE - 48

Cost of Tests

The cost of making any test shall be borne by the Contractor if such test is :

- (a) Clearly intended by or provided for in the Contract, or
- (b) particularized in the Contract (in case only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfill) in sufficient detail to enable the Contractor to price or allow for the same in his Tender.

CLAUSE - 49

Cost of Tests not provided for

If any test required by the Engineer which is

- (a) Not so intended by or provided for,
- (b) (in the cases above mentioned) not so particularized, or

(c) (though so intended or provided for) required by the Engineer to be carried out at any place other than the Site or the place of manufacture, fabrication or preparation of the materials or Plant tested shows the materials, Plant, or workmanship not to be in accordance with the provision of the Contract to the satisfaction of the Engineer, then the cost of such test shall be borne by the Contractor, but in any other case also the contractor will bear the cost.

CLAUSE - 50

Commencement of works

The contractor shall commence the Works as soon as is reasonably possible after the receipt by him of a notice to this effect from the Engineer, which notice shall be issued within the time stated in the appendix to Tender after the date of the Letter of Acceptance. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

CLAUSE - 51

Substantial Completion of Parts

If any part of the Permanent Works has been substantially completed and has satisfactorily passed any Test on Completion prescribed by the Contract, the Engineer may issue a Taking- Over Certificate in respect of that part of the Permanent Works before completion of the Works and, upon the issue of such certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the Permanent Works during the Defects Liability Period.

CLAUSE - 52

Force Majeure

Neither party shall be liable to the other for any loss or damage occasioned by or arising out of acts of GOD such as Unprecedented flood, Volcanic eruption, Earthquake or other convulsion of nature and other acts such as general/partial strikes by a section of government employees/invasion, the act of foreign countries/hostilities or war like operations before or after declaration of war, rebellion/military or usurped power which prevent performance of the contract and which could not have been foreseen or avoided by a prudent person.

CLAUSE - 53

Recovery

Any amount found recoverable from the contractor shall be recovered as public demand under the Bihar Public Demand Act, without prejudice to any other mode of recovery.

SECTION 4
CONTRACT DATA
(PERFORMA OF SCHEDULES)

PERFORMA OF SCHEDULES
SCHEDULE 'A'

Schedule of items to be executed

1A	Construction of 150mm X100mmx 125m deep T/W etc. all complete and as per direction of E/I.(As per sub Estimate no.- 1)
1B	Construction of 150 mmX90m deep drilled T/W etc. all complete and as per direction of E/I.
2	Constructing masonry Chamber 100x100x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for Tube Well, and RCC top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size) , necessary excavation, foundation concrete 1:2:4(1 cement : 2 fine sand : 4 graded stone aggregate 20 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3coarse sand) 12 mm thick with 5% cico fnished with a floating coat of neat cement, out side plastering with cement mortar 1:4 (1 cement : 4coarse sand) 12 mm thick complete as per standard specifications & direction of E/I. (As per sub Estimate no.- 2)
3A	Supply Installation, commissioning and testing of single phase 3 H.P submersible pump set having discharging capacity 3.35 lps at a total head of 35 meter(approx) of different capacity of KSB/ Kirloskar or equivalent make with all accessories & fittings such as 7.5KVA Stabalizer, cable, panel board etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning as per standards specifications and direction of E/I. (As per sub Estimate no.- 3a)
3AA	Supply Installation, commissioning and testing of single phase 3 H.P submersible pump set only having discharging capacity 3.35 lps at a total head of 35 meter(approx) of different capacity of KSB/ Kirloskar or equivalent make with all accessories & fittings etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning excluding the cost of GI pipes for lowering and cables etc. as per standards specifications and direction of E/I. (As per sub Estimate no.- 3a items)
3B	Supply Installation, commissioning and testing of single phase 2 H.P submersible pump set having discharging capacity 2.25 lps at a total head of 35 meter(approx) of different capacity of KSB/ Kirloskar or equivalent make with all accessories & fittings such as 7.5KVA Stabalizer, cable, panel board etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning as per standards specifications and direction of E/I. (As per sub Estimate no.- 3b)

3BB	Supply Installation, commissioning and testing of single phase 2 H.P submersible pump set having discharging capacity 2.25 lps at a total head of 35 meter(approx) of different capacity of KSB/ Kirloskar or equivalent make with all accessories & fittings etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning excluding the cost of GI pipes for lowering and cables etc. as per standards specifications and direction of E/I.(As per sub Estimate no.- 3B items)
3C	Supply Installation, commissioning and testing of three phase 5 H.P submersible pump set including light wiring, power wiring and extension of over head L.T line from nearest point of electric line up to pump room having 50 C/sec. 2900 rpm at a total head of 35 meter(approx) of different capacity of KSB/ Kirloskar or equivalent make with all accessories & fittings etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning complete set as per standards specifications and direction of E/I. (As per sub Estimate no.- 3c)
3CC	Supply Installation, commissioning and testing of three phase 5 H.P submersible pump set only having 50 C/sec. 2900 rpm at a total head of 35 meter(approx) of different capacity of KSB/ Kirloskar or equivalent make with all accessories & fittings etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning excluding the cost of GI pipes for lowering and cables etc. as per standards specifications and direction of E/I.
4a	Providing & Fixing BIS approved 3 HP submersible motor starter all complete as per direction of engineer in charge. (As per sub Estimate no.- 4a)
4b	Providing & Fixing BIS approved 2 HP submersible motor starter all complete as per direction of engineer in charge. (As per sub Estimate no.- 4b)
4c	Providing & Fixing BIS approved 5 HP submersible motor starter all complete as per direction of engineer in charge. (As per sub Estimate no.- 4c)
5a	Supply & Installation of 90-220 V range single phase 7.5 KVA automatic voltage stabilizer make-Sen & Pandit/ Vertex/ISI marked Stabilizer of reputed make. (As per sub Estimate no.- 05)
5b	Supply & Installation of 90-220 V range single phase 5.0 KVA automatic voltage stabilizer make-Sen & Pandit/ Vertex/ISI marked Stabilizer of reputed make. (As per sub Estimate no.- 05)
6A	Providing and Laying Distribution network of 90 MM High Density Polyethylene pipe (HDPE pipe) all complete as per direction of E/I. (As per sub Estimate no.- 6A) *

6B	Providing and Laying Distrbution network of 75 MM High Density Polyethylene pipe (HDPE pipe) all complete as per direction of E/I. (As per sub Estimate no.- 6B) *
6C	Providing and Laying Distrbution network of 63 MM High Density Polyethylene pipe (HDPE pipe) all complete as per direction of E/I. (As per sub Estimate no.- 6C) *
6D	Providing and Laying Distrbution network of 50 MM High Density Polyethylene pipe (HDPE pipe) all complete as per direction of E/I. (As per sub Estimate no.- 6D) *
6E	Providing and Laying Distrbution network of 40 MM High Density Polyethylene pipe (HDPE pipe) all complete as per direction of E/I. (As per sub Estimate no.- 6E) *
7a	Cost of replacement of riser / delivery pipe by 50 mm dia G.I.Pipe from T/well to PVC Tank
7b	Cost of replacement of riser / delivery pipe by 65 mm dia G.I.Pipe from PVC Tank to Distribution main
7c	Cost of replacement of riser / delivery pipe by 80 mm dia G.I.Pipe for wash out
7d	Providing and fixing brass gate valve with C.I. wheel of approved quality (screwed end). 80mm dia Pipe
7e	Providing and fixing brass gate valve with C.I. wheel of approved quality (screwed end). 50mm dia Pipe
7f	Supplying all materials labours & fixing 50mm dia. G.I pipe for using as filling station etc. All as per direction of E/I.
8	Estimate for supply & installation of water storage tank (5000 Ltr. =5000 X 1) as per direction of engineer in charge. (As per sub Estimate no.- 08)
9	Installation of Electronically Regulated Doser type chlorinator using Sodium Hypo Chlorite (Hypo NaOCl) (As per sub Estimate no.-09)
10	Providing and erecting 8M high staging with ladder of ISA65x65x6 and 16mm dia MS bar as trade @ 400mm c/c and GI enclosure to house electric switch panel & treatment unit (where required) of suitably designed MS section of angle, channel, etc. as per drawing attached. (As per sub Estimate no.-10) *
11	Estimate for Painting of 8M Steel Staging all complete as per direction of engineer in charge. (As per sub Estimate no.- 11)

12a	Estimate for Providing GI enclosure to house electric switch panel for steel structure staging all complete. (As per sub Estimate no.- 12) *
12 b	Repair/ Replacement of M.S angle / channel / Roof Sheet including riveted/ welded/bolted in built up sections, trusses and framed work, including cutting,hoisting,fixing in position and applying a priming coat of approved primer all complete
13a	Estimate for Construction of floor of staging etc. all complete as per direction of engineer in charge. (As per sub Estimate no.- 13) *
14	Providing ladder in staging including all accessories etc. all complete. (As per sub Estimate no.- 14)
15	Providing New house connection for each house hold including supplying all materials, labours, tools and making ferrule connection with 20 mm dia MDPE and 15mm G.I Pipes with all fittings etc all complete. (As per sub Estimate no.- 15)
15a	Providing New house connection <u>without retrofitting</u> for each house hold including supplying all materials, labours, tools and making ferrule connection with 20 mm dia MDPE and 15mm G.I Pipes with all fittings etc all complete. (As per sub Estimate no.- 15a)
16	Repairing of House Connection (As per sub Estimate no.- 16)
16A	Repairing of House Connection with leakage at ferrule (As per sub Estimate no.- 16A)
16B	Minor repairs to House Connection (As per sub Estimate no.- 16B)
17	Replacing of damage Bib cock with New Bib cock (As per sub Estimate no.- 17)
18	Repairing of 3 HP/2 HP Pump Motor (As per sub Estimate no.- 18)
18b	Repairing of 5 HP Pump Motor (As per sub Estimate no.- 18b)
19	Repairing of Starter (As per sub Estimate no.- 19)
20	Repairing of Stabilizer (As per sub Estimate no.- 20)
21	Supplying & fitting 2.5 mm ² copper service cable from power point from nearest source up-to pumping station. (As per sub Estimate no.- 21)
22	Cleaning of one 5000 Ltr capacity overhead pvc tank and getting water quality tested from departmental lab. (As per sub Estimate no.- 22)
23A	Repairing of Leakages in HDPE Pipe line with PCC cutting & Restoration. (For HDPE Laid at depth 0.5 to 1.0 m)(As per sub Estimate no.- 23)
	90 mm Dia
	75 mm Dia
	63 mm Dia
	50 mm Dia

	40 mm Dia
23B	Repairing of Leakages in HDPE Pipe line without PCC cutting & Restoration.(For HDPE Laid at depth 0.5 to 1.0 m)(As per sub Estimate no.- 23)
	90 mm Dia
	75 mm Dia
	63 mm Dia
	50 mm Dia
	40 mm Dia
24A	Repairing of Leakages in HDPE Pipe line with PCC cutting & Restoration. (For HDPE Laid at depth 0.0 to 0.5 m)(As per sub Estimate no.- 24)
	90 mm Dia
	75 mm Dia
	63 mm Dia
	50 mm Dia
	40 mm Dia
24B	Repairing of Leakages in HDPE Pipe line without PCC cutting & Restoration.(For HDPE Laid at depth 0.0 to 0.5 m)(As per sub Estimate no.- 24)
	90 mm Dia
	75 mm Dia
	63 mm Dia
	50 mm Dia
	40 mm Dia
25	Supplying and laying of submersible flat cable ISI marked 3 core copper wire of suitable size with proper clamping of approved make. (Rate Chattisgarh SOR 34.20.107)
26	Replacing damaged portion of riser and delivery pipe 8 meter staging with CPVC / UPVC pipe and providing gun metal Gate valve. (Sub Estimate No.26)
	Replacing damaged portion 50 mm dia. CPVC / UPVC Riser pipe
	Replacing damaged portion 80 mm dia. CPVC / UPVC Riser pipe
	Replacing CPVC / UPVC Gate Valve 50 mm dia.
	Replacing CPVC / UPVC Gate Valve 80 mm dia.
27	Development of Twell. (Sub Estimate No.27)
28	Repairing and painting of RCC staging (Sub Estimate No.28)
29	Restoration of road for pipeline work having trench size 300 mm.
30	Providing and fixing 19mm PVC/Block board with KitKat to affix/hang starter, fuses, IoT devices etc all complete as per the directions of the E/I.
31	Providing 50 mm GI pipe for lowering the riser pipe of submersible pump all complete as per the directions of the E/I. (Sub Estimate No.30)

32	Providing and fixing MS clamp consisting of 32mm x 5mm thick two no. rings spaced suitably distance apart around the tank and six nos. L type flats suitably connected with the rings and the other leg suitably connected with the top of the steel structure as per direction of E/I.
33	Providing and fixing of New PVC 5000 L Tank Cover with all accessories.
34	Providing and fixing M.S Stabiliser Stand near panel Board to keep stabiliser safe.
35	Renovation (Repairing and painting) of Attendant Cum Pump room & toilet. (As per sub Estimate no.- 31)
36	Renovation (Repairing and painting) of Existing Boundry wall of Length 29Mtr and height 1.5Mtr. all complete as per direction of E/I. (As per sub Estimate no.- 32)
37	Campus development by land filling and brick soaling. (As per sub Est.no.-33)
38	Replacement of Existing Solar driven Pump with Electric driven single phase 2 H.P. submersible pump set having discharging capacity 3 lps at a total head of 45meter (approx) of KSB/ Kirloskar or equivalent make with all accessories & fittings etc including loading unloading and transportation of the pump set to the work site with all required labour, materials, tools and tackles installation, testing & commissioning as per standards specifications and direction of E/I. (As per sub Est. no.- 34)
39	Supplying, installation Testing & commissioning of Solar Pannel plate etc all complete as per direction of E/I. (As per sub Est. no.- 35)
40	Supplying, installation Testing & commissioning of Variable Frequency Drive (VFD), Change over Switch and Net Energy Metering (NEM) system (As per sub Est. no.- 36)
41	Providing and Fixing 12 VOLT Solar Battery as per direction of E/I. (As per sub Est. no.- 37)
42	Providing all labours, tools and materials to repair the leakage of different sizes of pipe at different places including earthwork in excavation, opening of joint, dewatering of the trenches, making lead caulked joint & back filling the trenches etc. all complete work (As per sub Est. no.- 38)
	40mm dia
	(i) without road cutting
	(ii) with Pucca road cutting
	50mm dia
	(i) without road cutting
	(ii) with Pucca road cutting
	65mm dia
	(i) without road cutting
	(ii) with Pucca road cutting
	80mm dia

	(i) without road cutting
	(ii) with Pucca road cutting
43	Repairing of 63/25 kva transformer including LT pannel rapair in pump house Including Conductor,fuse relay,Timer as required,ST- CTBT pannel repair,Transformer Oil (630Ltr) Make-Servo etc all complete as per direction of engineer in charge.
44	Providing all labours, materials and cleaning of RCC water VAT from inside and doing chlorination etc. all complete work as per specification & direction of E/I. (As per sub Est. no.- 39)
45	Construction of 200 mm x 150 mm x 125 m deep T/W etc. with UPVC Pipe all complete and as per direction of E/I. (as per sub-estimate no.40).
46	Construction of 200 mm x 150 mm x 125 m deep T/W etc. with MS Pipe all complete and as per direction of E/I. (as per sub-estimate no.41).
47	Construction of 300 mm x 200 mm x 125 m deep T/W etc. with MS Pipe all complete and as per direction of E/I. (as per sub-estimate no.42).
48	Construction of 450 mm x 300 mm x 125 m deep T/W etc. with MS Pipe all complete and as per direction of E/I. (as per sub-estimate no.43).
	Painting of 10000 Gallon Water Tower. (as per sub-estimate no.44).
	Painting of 20000 Gallon Water Tower. (as per sub-estimate no.45).
	Painting of 40000 Gallon Water Tower. (as per sub-estimate no.46).
	Painting of 50000 Gallon Water Tower (as per sub-estimate no.47).
49	Provision of pump operator
50	Payment of electricity bills
51	Any other works mentioned in Technical Sanction/BoQ of the estimate based on the rate of TS.

Note:- The depth of high yield tube well may vary site to site depending upon the depth of water bearing aquifer and hydrology of the area including desired yield of the T-well.

The payment for this item will be made on the basis of actual depth of the tube well on pro rata basis.

SCHEDULE 'B'

Schedule of materials be issued to the contractor.

NIL

SCHEDULE 'C'

Tools and plants to be hired to the contractor

NIL

SCHEDULE 'D'

Extra schedule for specific requirements / document for the work, if any.

SCHEDULE 'E'

Schedule of component of Cement, Steel, other Materials, labor etc. for price escalation.

NOT APPLICABLE

SCHEDULE 'F'

Reference to General Condition of Contract.

Comprehensive operation and maintenance and Special repair of Ward level Piped Water Supply Schemes based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years.

Estimated cost of work:	Rs 2950.09524 lakh
i) Earnest money:	Rs.39.501lakh
ii) Performance Guarantee:	2% of tendered value,
iii) Security Deposit:	8% of tendered value.
iv) Defect Liability period:	The defect liability period will be 60 (sixty) months.
v) Rate of Interest:	As applicable Bank Rates

GENERAL RULES AND DIRECTIONS

Officer inviting tender Executive Engineer, P.H. Division Munger.

Definitions:

Engineer-in-Charge Executive Engineer

Percentage on cost of materials
and labor to cover all overheads
and profits -

Standard Schedule of Rates PWD/ PHED BIHAR

Department & Employer PHED, BIHAR

Standard PWD Contract Form PWD 2 as modified & corrected

Clause 1

- i) Time allowed for submission of performanceGuarantee from the date of issue of letter of

	acceptance, in day 21 days	
Clause 2	Authority for fixing compensation under clause 2.	Superintending Engineer
Clause 2A	Whether Clause 2A shall be applicable	No
Clause 5	Number of days from the date of issue of notice to start.	07 days
Clause - 7	Gross work to be done together with net payment/ adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	(NOT APPLICABLE)
Clause - 10CC	Clause 10CC to be applicable in contracts with Stipulated period of completion exceeding the Period shown in next column	(NOT APPLICABLE)
Clause - 11	Specifications to be followed for execution of work	P.H.E.D
Clause - 12	Deviation, variation Extent and pricing.	As per P.W.D. Code
Clause - 16	Competent Authority for deciding reduced rates.	As per P.W.D. Code or Govt. circulars
	<ul style="list-style-type: none"> The following document also All Documents concerning with Works form part of the contract from tender upto defect liability period The law, which applies to the contact, is The court of jurisdiction The Language of contract document The limit of sub-contracting The Currency of the Contract is 	<ul style="list-style-type: none"> The Law of Union of India Patna English Nil Indian Rupees

SECTION 5
SPECIAL CONDITION OF CONTRACT
(CONDITION OF PARTICULAR APPLICATION)

PUBLIC HEALTH ENGINEERING DEPARTMENT

BIHAR, PATNA

GOVERNMENT OF BIHAR

Name of work

Comprehensive operation and maintenance and Special repair (based on item rate) of Ward level Piped Water Supply Schemes based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years.

For the general guidance and information of the prospective tenderer a brief note on the water quality status is given below. HOWEVER THE TENDERERS MUST NOTE THAT BEFORE PARTICIPATING IN THE BID, THEY MUST VISIT THE SITE AND SATISFY THEMSELVES BY BECOMING FULLY CONVERSENT/ FAMILIAR WITH THE ENTIRE EXISTING SYSTEM AND ALL RELEVANT SITE CONDITIONS. THE RATES QUOTED MUST BE INCLUSIVE OF ALL TAXES AND DUTIES FOR ALL THE COMPONENTS.

Scope of work

The scope of work includes Comprehensive operation and maintenance and Special repair (based on item rate) of Ward level Piped Water Supply Schemes based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years.

Design: The Design Parameters are to be adopted as below:

In case of new construction of any component of the water supply scheme, the design criterion shall be as under:

Design Period

Clause 2.2.6 of CPHEEO Manual for Drinking Water Supply stipulate design period, For some components it may be modified depending on its useful life, facility for carrying out extensions when required and interest rate so that expenditure far ahead of utility is avoided. Land for future extension should be acquired in beginning itself. Project components may be designed to meet the requirements of the following design period.

Sl.No.	Data Source	Design period in years
---------------	--------------------	-------------------------------

1	Tube wells	15 yrs.
2	Pumping	15 yrs.
3	i. Pump house (civil works)	30 yrs.
	ii. Electric motors and pumps	15 yrs.
4	Water treatment units	15 yrs.
5	Pipe connection to several treatment units and other small appurtenances	15 yrs.
6	Raw water and clear water connivance mains	15 yrs.
7	Distribution system	30 yrs.

Per Capita water Supply

- Domestic :
 - 70 LPCD for House Connections,
 - Where water is provided through PSPs 40 LPCD should be considered.
 - The un accounted for water is not included in above per capita supply.
- Un accounted for Water :
 - A scheme provision of 15% for UFW/NRW should be taken.

Peak factor:

- Economic size is when it runs 24 hours. As such power availability determines pumping hours. Peak factor for Rising main is "24/Pumping hours".

Minimum and maximum Velocity of flow:

- Minimum Velocity may be 0.6m/sec. to avoid deposition and erosion and maximum velocity may be 3m/sec to prevent erosion.

Head Loss in Pipes:

- Special and appurtenance. As per CPHEEO Manual and GoI Guidelines.

Pressure Requirement:

- Minimum Pressure at any place in distribution system should be 7m for a single storied which is as per CPHEEO Manual/ MoDWS (Ministry of Drinking Water & Sanitation, GoI) Guidelines.

Minimum Pipe Size:

- Minimum pipe size may be taken 40 mm for HDPE pipes for Distribution Network
- Pipe for House Connection will be MDPE (20 mm dia) with one mtr. GI Pipe.

Disinfection

- To be done using Chlorinator as mentioned in Schedule A of this Document

Pumping

Single phase submersible pump as Of 2.5-3 lps capacity at 35m head should be provided.

Overhead Storage Water Tank

5000 Ltr PVC Water Tank shall be provided.

Items of work to be taken up

1. The bidder is required to perform all labour, equipment, material etc. in order to maintain and operate the water supply scheme and keep it functional during the entire duration of the contract.
2. The bidder is required to maintain and keep the components of the water supply scheme well functional during the entire duration of the contract.
3. The key infrastructure created in the water supply scheme includes tube wells, Ground Service reservoirs, rising and delivery mains, Elevated service reservoirs, distribution system, pumping machinery and related ancillaries, electromechanical equipments, house service connections, pump houses, maintenance and upkeep of the water service premises etc.

The bidder shall make all efforts and keep these components well functional.

4. Maintenance and if required construction of tube wells as per the direction of E/I. (In case of hilly areas depth may vary as per site condition, hydrology of the area and desired yield of the T-well) using U.P.V.C. Pipe & Strainer etc. (IS 12818 CM Class duly ISI marked) all complete and as per direction of E/I.
5. Maintenance and if required supplying and installation of pump and motor including doing power and light wiring supplying all complete job etc all complete as per direction of E/I.
6. Maintenance and if required supplying HDPE/CI/DI/GI pipes as per the directions of Engineer in Charge including Earthwork in 30 cm wide and 1 m deep trenches, including crossing of ditches road cutting and (including concrete road/ BT road/ Brick soling) and subsequent restoration of the road as existed after backfilling the trenches after laying of line, providing necessary thrust block where as required, construction of brick masonry chamber (60cm x 60cm x with required depth) for valves with certification mark and fixing in trenches including the cost of fullway valves, earth work in back filling the trenches after laying of different types and sizes of pipe, fittings and valves with earth removed during excavation within initial lead and lift etc. including providing night guard, barrier and red light to safe guard against accident, testing of laid pipes etc. all complete job as per specification and direction of E/I.

In pursuance of the directions vested in the Indian telegraph Rules'2022 rule 3(1), the contractor has to compulsorily register in the CBuD app and intimate the CBuD nodal well in advance preferably at the planning stage and before carrying out any excavation work. In case of any disputes, penalties, litigations owing to the non compliance of the aforesaid act, the contractor will be solely responsible and has to pay for the damages financial or physical.

7. Maintenance and if required providing new house connection for each house hold including supplying all materials, labours, tools and making ferrule connection with 20 mm nominal dia MDPE Pipes (PE-80 grade PN-12.5 as per IS 4427) with all fittings and erecting stand posts with GI i/c retrofitting the posts including fastening and fitting of brass bib cock, PP black saddle etc all complete per direction of E/I.
8. Supplying all materials, labor, equipment, machinery to maintain RCC/Steel ESRs/stagings
9. Deployment of manpower, checking of status of supply in the command area, repairing of leakages, getting the water quality endorsed / tested by district/state laboratories twice pre-monsoon and post-monsoon, annual / bi-annual maintenance of all built-up / installed structures / units under the scheme , including round-the clock watch & ward to ensure potable water to the beneficiaries of the scheme **for 60 calendar months.**
10. **All works of this contract will be guided by the O&M policy of PHED as circulated by the departmental resolution no. 543 dated 28.06.21**

PAYMENT SCHEDULE

- The payment shall be done on the basis of actual quantities of work which is executed. The payment will be made quarterly for which the contractor shall duly submit the invoices based on the quantities executed and the quoted rates.
- In order to process the bills the contractor is required to furnish the approvals/sanctions provided to him for carrying out such repair works.
- Electricity/ Power Bills will be borne by the agency based on the prevalent tariff including subsidies (if any) fixed by the Bihar Electricity Regulatory Commission; applicable for the “HGNJ” project.

Electricity bills shall be paid based on the actual bills generated by the power company and the contractor is required to attach the actual electricity bill with their invoices.

- The payment to the pump operators shall be done monthly. The contractor is also required to submit proof of payment to the pump operators along with the invoice.

DUTIES, OBLIGATIONS AND RIGHTS OF THE OPERATOR

Without detracting from any duties, obligations and rights imposed on or conferred upon (whether expressly or by implication) the Operator by this Contract or implied by law or commercial custom on managers of a business similar to the Service, it shall be the duty, obligation or right of the Operator:

1. TO SAFEGUARD, USE, MANAGE AND CONTROL ASSETS

- The Department reserves the rights in the assets comprising the system.
- The Operator shall have access to, the right to use, and the duty to safeguard, manage and control the assets referred above for operation and maintenance period, for the purpose of discharging its duties and obligations or exercising its rights under this Contract, for the term of this Contract.
- The operator shall receive prior sanction of the quantities of work going to be executed by him. The authorities capable of sanctioning the quantities are:

For repair of existing facilities or equipment: Assistant Engineer.

For replacement of existing facilities or equipment: Executive Engineer.

- During O&M period the Operator/ Contractor shall maintain in good working condition, throughout the term of this Contract, the assets created for the project and shall ensure that adequate control is maintained over assets owned by, or in the custody of the Operator/ Contractor.
- The Operator/ Contractor shall not dispose of or create any lien, charge, or proprietary interest of any nature whatsoever in favor of the Operator/ Contractor or a third party in the created for the project, except on the express written instruction of the Department.
- The Operator/ Contractor shall comply with any directions of the Department to use or dispose of any asset or any money or other consideration to which the Department becomes entitled as a result of disposing of any asset.
- The payment to the Contractor during 60 O&M month Period, shall be governed by the Payment schedule on quarterly basis upon raising of invoice to the department as mentioned in Special conditions of contract.

2. PROVIDE WATER SUPPLY SERVICES

- The Operator/ Contractor shall discharge all the duties and obligations of a Water Supply Service Provider within the Water Supply Area and ensure Potable Water Supply to the consumers at adequate pressure.
- The Operator/ Contractor shall be responsible for O&M of the Water Supply System, provision of household connections, (Generation of bills, if required) and redressal of complaints from consumers relating to the entire Water Supply System redressal of complaints of consumers shall be promptly addressed to the satisfaction of consumers as well as E/I. No supply period shall not be more than 24 hrs. in any case and alternate temporary arrangement for emergent Water Supply should be made by the contractor.
- In discharging for supplying water during the O&M period, the Operator/ Contractor shall:
 - (a) exercise due diligence, efficiency, and economy in accordance with generally accepted professional conduct and practice, and shall employ sound management practices and appropriate technology in the best interests of the Department;
 - (b) employ key personnel having the requisite skill for proper delivery of services to the consumers. The Operator/ Contractor shall acquire, provide, manage, and utilize all assets, resources, facilities, staff, and technologies necessary to the provision of the service in the Water Supply Area;
 - (c) comply with:
 - (1) any code of workmanship prescribed by the legislation of India and Bihar.
 - (2) the service standards specified or referred to in the Attachment I to Special conditions of contract of this Contract
 - (3) every provision of all laws relating to the duties and obligations for operation and maintenance and supply of water, to occupational health safety of employees, to the environment, to the collection and payment of taxes and to any other matter whatsoever.
 - (4) the terms of any water or waste discharge permit granted to the Department.
 - (5) any notice, instruction or direction issued in accordance with clause 4

Failure by the Operator/ Contractor to comply with any of the foregoing provisions shall amount to a breach of this Contract subject to clause 21 at the discretion of the Department.

(d) Maintain the water treatment units in compliance with the specifications and manuals of the water treatment plant supplier.

(e) pay all taxes, rates, charges, fees, and penalties and provide all returns, files and documents required of it under applicable tax laws or other laws and discharge all obligations imposed on it by such laws.

- In discharging the duties and obligations for O&M and supply of water to consumers, the Operator/ Contractor may sub-contract any part of such duties to an independent Operator/ Contractor with the express approval of the Department. The Operator/ Contractor shall provide the Department with such information about the proposed sub-Operator/ Contractors as the Department may require and shall execute a contract approved by the Department.

TO MAINTAIN AND IMPROVE THE SYSTEM

- The Operator/ Contractor shall be responsible, at its own cost, for managing all preventive maintenance and normal repairs, major maintenance or replacements to the system including rectifying damage to the system due to any act of negligence in performance of its functions, deemed necessary to maintain the value of the assets constructed for creation of scheme and ensure compliance with the Standards as per CPHEEO manual for operation and maintenance of water supply.

TO MAINTAIN AND KEEP RECORDS

- 1 For each scheme created under the project, The Operator/ Contractor shall keep proper and adequate accounts and records of the transactions and affairs of the water supply and shall keep records that are necessary to explain the financial operations and financial position of the system.
- 2 The accounting period of the Operator/ Contractor shall coincide with the accounting period of the Department.
- 3 The Operator/ Contractor shall develop and maintain an adequate internal accounting control system.
- .4 Any customer or former customer of the scheme may apply to the Operator/ Contractor for
 - (a) copy of all records held by the Operator/ Contractor concerning that customer, in such a form as may be prescribed by the Department
 - (b) The Operator/ Contractor shall provide a customer or former customer under sub-clause

REPORT TO THE AUTHORITY

- 1 The Operator/ Contractor shall, in respect of each quarter of a financial year and no later than 30 calendar days after the end of such quarter, prepare a report to the Department containing:
 - (a) information about, and an analysis of, its operations for the quarter and cumulatively for the year to date; and
 - (b) financial statements in accordance with Generally Accepted Accounting Principles for the quarter and cumulatively for the year to date.

- 2 The report referred to above shall:
 - (a) be prepared in a form acceptable to the Department;
 - (b) contain the information determined by the Operator/ Contractor to be appropriate;

Type of Assets

(to be operated and maintained by the Operator) and

- (c) contain any other information reasonably required by the Department.
- 3 The Operator/ Contractor shall, in respect of each calendar month, and no later than 5 days after the end of such month, prepare a report to the Department containing:
 - (a) the billings for the month showing distinctly the net billings, and gross billings; if required.
 - (b) Collections for the month showing distinctly the net billings, and gross billings collected; if required.
 - 4 The Department may require and the Operator/ Contractor, when notified, is obliged to appear in meetings of the Department convened to discuss the affairs of the Department. The Department may request the Operator/ Contractor to make such presentations, reports, demonstrations or take such actions as the Department may deem necessary with reasonable prior notice.
 4. Failure of the Operator/ Contractor to comply with the provisions of this clause shall amount to a breach of this contract at the discretion of the Department, and shall result in withholding of the payments for that quarter.

TO ALLOW INSPECTION

The Operator/ Contractor shall allow the Department and the, or any person representing the Department, access at any time to:

- (a) any land owned or occupied by the Department;
- (b) any assets renewed, acquired, or constructed by the Department;
- (c) any assets under the contract owned by the Operator/ Contractor;
- (d) inspect any land, works, buildings or any other assets;
- (e) make any tests, take any measurements, or take any samples;
- (f) take any photographs or make any plans or drawings; and
- (g) inspect and, if necessary, make any copies of any records or documents referred to in clause 10 in order to ascertain whether the Operator/ Contractor is complying in every respect with this Contract.

TO BE INDEMNIFIED

Provided that the Operator/ Contractor, and their employees shall use diligence and care in carrying out their duties hereunder, neither they nor any of their and employees shall be liable for any damage to persons or property arising out of any information, advice or service supplied to the Department or act performed for the Department or otherwise in the course of their duties hereunder. The Department shall indemnify the Operator/ Contractor and every such person against all claims, demands, losses, liabilities, actions, lawsuits, costs and expenses arising directly or indirectly out of or in consequence thereof or in the implementation of this Contract.

SPECIAL CLAUSES PERTAINING TO DOWNTIME, TIME CONTROL, QUALITY CONTROL AND COST CONTROL

(A) DOWNTIME

Downtime allowed in different cases is as following:

1. In case of any break down of Pumping plant : 24 hours.
2. In case of any break down in pipeline (minor leakages) : 12-24 hours.
3. In case of any break down in pipeline (major breakdown) : 3-5 days
4. Repair of House connection : 24 hr

Applicable Penal Charges:

If the contractor fails to maintain the allowable downtime as mentioned above, he shall without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below:

Compensation @ Rs. 200.00 per hour beyond the allowable downtime with a maximum of Rs 2000.00 per day.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government.

(B) TIME CONTROL

Within the time stated in the Contract data the contractor shall submit to the Engineer in charge for approval a program showing the general methods, arrangements, order, and timing for all the activities in the works along with monthly cash flow forecast.

An update of the program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

The contractor shall submit to the Engineer in charge, for approval, an updated program at intervals no longer than the period stated in the contract data. If the contractor does not submit an updated program within this period, the Engineer in charge may withhold the amount stated in the contract data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.

The Engineer's approval of the program shall not alter the contractor's event occur or a variation is issued which makes it impossible for completion to be achieved by the intended completion date without the contractor taking steps to accelerate the remaining work and which would cause the contractor to incur additional cost.

(C) QUALITY CONTROL

The Engineer shall check the contractor's work and notify the contractor of any defects that are found. Such checking shall not affect the contractor's responsibilities. The Engineer in charge may instruct the contractor to search for a defect and to uncover and test any work that the Engineer in charge considers may have a defect.

If the Engineer –in- Charge instructs the contractor to carry out a test not specified in the specification to check whether any work has a defect and the test shows that it does, the contractor shall pay for the test and any samples.

The Engineer –in- Charge shall give notice to the contractor of any defects before the end of the defect's liability period, which begins at completion and is defined in the contract data. The defects liability period shall be extended for as long as defects remain to be corrected.

Every time notice of a defect is given; the contractor shall correct the notified defect within the length of time specified by the Engineer's notice.

If the contractor has not corrected a defect within the time specified in the Engineer's notice, the Engineer in charge will assess the cost of having the defect corrected, and the contractor will pay this amount.

Any document/manual/Standard Operating Procedure (SOP) in respect of quality control/ monitoring and satisfactory performance of scheme either issued or to be issued by the department will be applicable and binding to the contractor for the contract.

(D) COST CONTROL

The bill of quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the contractor for the unhindered operation of the schemes.

(E) Inventory to be maintained by the Contractor during Operation and Maintenance Phase:

- MCC: Relay, Tripping circuit, fuses.
- Spare Motor Pump set with starter with wires.
- Chain Pulley with tripod and lifting arrangement to pull out pump assembly.
- Specials of all kinds used in Pipeline.
- At least one length of all dia. pipes that were used in construction system.
- Sufficient no. of Ferrules, Bib cock, FTA, MTA etc.
- tank nipple, gate valves, elbows etc.

(F) Formal Inspections of Service Levels

The owner shall inform the Contractor of his intention to carry out a formal inspection at least 48 hours in advance, indicating the exact date, hour and location where the formal inspection is to begin. The Contractor is obliged to be present at the date, hour and location specified by the Employer, providing the physical means needed for the inspection as indicated further below. The following minimum formal inspections should be undertaken by the Contractor in the presence of the Engineer in charge of all of the roads covered by the Contract as part of his responsibility to public safety and to enable him to schedule a monthly works Program.

Code	Inspection Type	Minimum Frequency
R	Routine	Monthly
H	Hazard	fortnightly

WARRANTY

Warranty card of manufactured items should be procured by contractor and submit of Department.

RELEASE OF PERFORMANCE SECURITY

Performance Security/ Additional performance security if any; will be released after 45 days of completion of Operation & Maintenance period.

CERTIFICATE OF UNDERTAKING

1. We shall replace, repair, and adjust free of all charges to the Employer any part of the work which fails to comply with the specifications for, wear and tear expected until the completion.
2. All the work will be reliable. The material and equipment supplied will be as per the information given in schedule.
3. All the work will be of a type which has been proved in service to be suitable for the duty required by the specifications and will have been manufactured and tested in accordance with the appropriate standard specifications approved by the Engineer in charge.
4. We accept and abide by the clauses relating to Quality and guarantee of work.
5. All the testing of materials like Cement, Steel, M.S. plates etc. required during the execution of the contract will be got tested by me at my own cost from Government recognized Laboratory. The sampling and testing will be done as given in relevant I.S. Codes.
6. We guarantee performance of all the equipment and material complying with the figures filled in respective schedule and the same will operate satisfactorily throughout the operating range specified in the tender.
7. We will comply with all necessary rectification within total time granted for rectification without any cost to PHED.
8. **Legal disputes, if any will be subject to PATNA jurisdiction only.**

ATTACHMENT I - TO SPECIAL CONDITIONS OF CONTRACT: STANDARDS OF OPERATIONS AND MAINTENANCE SERVICES

The appendices and clauses of the Operation and maintenance services shall be governed by the departmental O&M Guidelines vide letter: 543 dtd. 25/08/21 and any further addendums or corrigendum thereinto.

Performance Criteria for O&M

Coverage

The Operator shall ensure that it has covered 90% or more of the Customers in its given water supply area by before commencement of trial run of the system.

Quality of Treated Water

The Operator shall treat all water supplied to in compliance with the Indian Standard Specifications for Drinking Water IS:10500, as amended)

The Operator shall ensure that the quality of water throughout the water supply system does not exceed the limits given in this standard.

The PHED or an agency hired by it will undertake quality check of water supplied by the Operator on a sample basis as and when deemed fit by it or on the basis of complaints received by them. The BIS norms will determine the required quality against its specific parameters.

Pressure of Water Supplies

The Operator shall ensure that the residual pressure complies with

- Manual on Water Supply and Treatment (third edition - revised and updated) by Government of India Ministry of Urban development, New Delhi, March 1999.
- the pressure in the water supply system is always sufficient to prevent back-siphoning or infiltration of water into the system;
- a minimum terminal pressure at ferrule point at a house service connection is 7.0 meters.

Physical Losses

The Operator shall ensure that physical losses on the network are as follows:

- Losses in raw water conveyance and at the water treatment plant primarily associated with backwash operations are less than 5 per cent per reporting period;
- Losses on the clear water conveyance system (including service reservoirs) and in the distribution system are less than 10% per the reporting period.;

Cleansing of reservoirs

All reservoirs will be cleaned twice a year or as necessary in order to prevent contamination of water supplies. The date of cleaning should be displayed to public.

Continuity of Service

- The Operator shall aim to keep the schemes functional in order that provision of water for 6 hours supply 7 days a week is ensured. He shall make his own assessment of equipment and works to be part of the project to ensure such requirements. He shall make his own assessment of equipment and works to be part of the project to ensure such requirements. In case the contractor operates the scheme for more than the stipulated duration as above, suitable penalty for over running of the scheme shall be imposed on the contractor.

The Operator may temporarily interrupt supplies referred to above whenever:

- the Operator reasonably wishes to examine, alter, repair, maintain or construct works, and has advised customers likely to be affected at least 48 hours in advance of the date upon which, and times between which, the supply will be interrupted; and such interruptions shall not exceed two in a consecutive period of 12 months; or
- there is, or is reasonably likely to be, a risk that would endanger human life or any part of the environment, or compromise the health or safety of any person, or the safety of any works of the Authority., The Operator shall not be deemed to have failed to comply with the provision above whenever an interruption to supply occurs, because of:
- the action of a third party;
- an act of God (*force majeure*).

Maintenance and Repairs

The Operator shall on all works (including machines, equipment, etc) covered under the Operation and Maintenance agreement:

- maintain and keep the works and equipment in good repair and working condition;
- ensure that the water supply system operates effectively at all times; and
- take appropriate action within five hours of any failure in any part of the water supply system being discovered by it, or brought to its attention.

Prevention of Pollution

The Operator shall comply with all state and national legislation in relation to discharges or disposal of any matter for which a waste discharge permit is required.

Customer Services

A representative of the Operator shall be available at a convenient place for minimum of 6 hours per day to receive users who wish to make enquiries or submit complaints. The Operator shall comply with the performance standards set out in the following table:

Indicator	Minimum Performance
Complaints to be resolved within 24 hours: Complaints related to water quality, no water.	90%
Complaints to be resolved within 48 hours: Complaints related to low pressure,	

leaks in house service connections, Complaints to be resolved within 7 days: Complaints related to delay in providing connection, meter not working properly,, delay/errors/problems in billing and collection, change in customer database, reconnection, temporary disconnection, arrears, other complaints connected to customer database, billing or collection	90% 90%
--	----------------

A representative of the Operator shall be available at the water works office / treatment plant for ensuring a minimum water supply of 6 hours per day and to receive complaints from the Gram Panchayat/ Lok Nirman Samiti/ Ward Implementation & Management Committee, who wish to make enquiries or submit complaints. The Operator shall comply with the performance standards set out in the following table;

Indicator	Minimum Performance
Complaints to be resolved within 24 hours: Complaints related to water quality at bulk supply point, no water at bulk supply point. leaks in Bulk Water Supply System	90%
Complaints to be resolved within 72 hours: meter not working properly,, delay/errors/problems in billing for bulk water supply	90%

Ordinary Inspection

The main purpose of the Ordinary or Routine Inspection is a Conformance Inspection to enable the Employer to verify the quantities of work to be carried out in the upcoming month.

The contractor shall prepare item-wise quantities to be carried out in the month in the Performa attached hereunder. Based on this inspection report the quantities shall be sanctioned for further payments.

The contractor is advised to use separate Performa for getting the approval of repair, replacement and new construction.

A. Performa for getting the approval for repair, replacement and new construction.	
Agreement no.:	
Name of the Contractor:	
Division	
Sub Division	
Block	
Gram Panchayat	
Wards in which the work is to be carried out:	
Month in which the work will be carried out:	

Nature of repair:		Repair/ Replacement/ New construction (choose any one)			
Sl. No.	Item as per agreement	ward nos.	Quantities	Unit	Amount
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

Signature of
Approval authority

Emergency repair

The contractor shall in the best of his capacity strive to redress the complaints in the specified time. The contractor is also liable to address the complaints from CGRC, CPGRAMS, e-compliance dashboards, PGRS, complaints received at district level control rooms, district administration control rooms, complaints received in writing or by call from legislative members, etc.

As soon as the complaint is brought to the knowledge of the contractor, he shall strive to address the complaint on priority basis and shall use the Performa B for getting the sanction/approval from the competent authority.

B. Performa for redressal of complaints.	
Agreement no.:	
Name of the Contractor:	
Division	
Sub Division	
Block	
Gram Panchayat	
Wards in which the work is to be carried out:	
Source of complaint:	

Complain no. if any					
Nature of repair:		Repair/ Replacement/ New construction (choose any one)			
Sl. No.	Item as per agreement	ward nos.	Quantities	Unit	Amount
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
Date of repair					
Name of beneficiary					
Contact of beneficiary					
Signature					

Signature of
Approval authority

Note: The Engineer-in-charge if requires shall formulate suitable performa necessary for the ordinary repairs, major repairs, replacements and emergent repairs in and shall use the same instead of performa A & B attached above.

SECTION 6
TECHNICAL SPECIFICATION

1.0 SPECIFICATIONS

1.1 Materials and methods of construction for all civil works shall be as per relevant Indian standard specification, part of which are incorporated in the standard specification of P.H.E.D. and P.W.D. Bihar and all will be followed during the execution of the work. The work shall be executed as per the guidelines and provisions of B.I.S. All materials shall conform to Indian standard code of practice National Building Code and CPHEEO manual to maintain quality of work.

1.2 General

All materials shall be best of their kind and shall confirm to the relevant latest Indian standard code. All materials shall be of approved quality as per samples and from origins approved by the Engineer in Charge. A set of specimen samples of all approved materials shall be kept in sealed container or otherwise at site, cost of which is to be borne by the contractor.

1.3 Bricks

Only 1st class kiln burnt bricks shall be used unless otherwise specified. They shall be of a uniform deep cherry color; thoroughly burnt, regular in shape with sharp and square arris and they must emit a clear ringing sound on being struck. They must be free from cracks, chips, flaws, stones or lumps of any kind and they shall not absorb water more than one fifth of their own dry weight after soaking them in water for 24 hours. The bricks shall show no sign of efflorescence either dry or subsequent to soaking in water.

1.4 Sand

The source from which sand is to be obtained shall be subject to the approval of Engineer-in-charge. The sand shall be clean, sharp and gritty to touch and be freed from soil and other impurities by washing. The sand shall be washed to such a degree that when it is mixed with clean water in a glass and allowed to stand for an hour the precipitate of mud over the sand shall not exceed 5%. The sand should conform to IS 383-1982 for fine and coarse aggregates from natural sources.

1.5 Coarse Sand

It is to be screened through a sieve of 64 meshes to the square inch so as to exclude large particles from the work. The fineness modulus shall not be less than 2.5

1.6 Fine sand

It is to be screened through a sieve as per BIS: 383, so as to exclude large particles from the work. The fineness modulus shall not be less than 1

1.7 Stone chips

It shall be obtained from crushing trap quartzite or hard stones and from quarries approved by Engineer-in-charge. It shall be of approved quality and proper grade. It shall pass through $\frac{3}{4}$ "mesh and retained on $\frac{1}{4}$ "mesh. It shall be free from dirt, leaves, clay and any organic matter. The material conforming to IS 383-1983 for coarse and fine aggregate from natural sources and test for conformity carried out as per BIS -2386 (part 1 to 8) or IS 515-1959 for natural and manufactured aggregates for use in mass concrete with latest revisions.

1.8 Cement

Ordinary or lowest heat Portland cement conforming I.S.S. 269 –1989/ BIS- 8112A.C.C. / RAYMOND/Ultra-Tech,/LAFARGE shall be used after due approval of the Engineer-in-charge. All cement shall be fresh when delivered. Cements of different types are not to be mixed with one another. Consignments shall be used in the order of delivery. Admixture if any shall be used only after approvals of Engineer in charge.

1.9 Reinforcement

Steel reinforcement shall be of mild steel of grade Fe 240 & Fe 415 of tested quality conforming to I.S.S. – 432 -1966/ H.Y.S.D. bars conforming to ISS-1786/1779-of SAIL/TATA make.

All the reinforcement shall be clean and free from rust, mild scales, dust, paint, oil, grease, adhering soil or any other material or coating that may impair the bond between the concrete and the reinforcement, or cause corrosion of the reinforcement or disintegration of concrete. Neither the size nor length of bar or wire shall be less than the size or length described in the bar schedule or elsewhere and the length shall not be more than 50 mm in excess of the length as described.

Welded joints in reinforcement may be used but in cases of important connection, tests shall be made to prove that the joints are of the full strength of bars connected, welding of reinforcement shall be done in accordance with the recommendations of the relevant Indian standards for welding mild steel bars used in the reinforced concrete construction.

Bending and overlapping, placing in position, fabrication, binding, reinforcement with wire of approved gauge shall be done as per I.S. 432 – 1960 (revised) and I.S. 1786 – 1966 and I.S. 2502 (revised). Handling and storage of materials for concrete or RCC should be followed as per I.S. 4082 –1977.

1.10 Water

The water to be used in making and curing of concrete, mortar etc. shall be free from objectionable quantities of silts, organic matter, injurious amount of oils, acids, salts and other impurities etc. as per IS-456-1978. The Engineer-in-charge or his authorized representatives will determine whether or not such quantities of impurities are objectionable. Such comparison will usually be made by comparison of compressive strength, water requirement, time of setting and other properties of concrete made with distilled or every clean water and concrete made with the water proposed for use, Permissible limit for solids when tested in accordance with I.S. 3025-1964. Shall be as tabulated below

1. Organic	Permissible limit for solids Maximum permissible limit. 200 mg/litre.
2. Inorganic	3000 mg/litre.
3. Sulphate (As So 4)	500 mg/litre.
4. Chloride (As Cl.)	2000 mg/litre for P.C.C and 1000 mg/litre for R.C.C. work
5. Suspended matter	2000 mg/litre.

If any water to be used in concrete, suspected by the engineer-in-charge/or his authorized representative of exceeding the permissible limits of solids, samples of water will be obtained and get it tested by Engineer-in-charge in accordance with IS- 3025-1964.

1.11 Cement Mortar

The mortar shall consist of cement and sand mixed in proportion defined in relevant schedule item for various item of work. Only measured quantity shall be used. The sand shall be shoveled in a wooden measure of a clean masonry platform, after removing the measure box and spreading out sand if necessary, the cement (in required proportion) shall be emptied on the top of sand. The sand and cement shall be then turned over with shovels once dry and made into the form of a hollow cone; into this water can be poured and the whole shall then be turned over completely twice. The color and consistency shall at this stage be quite uniform, if not, further turning shall be done. Water shall be added by measured quantities. Only such quantities of mortar shall be mixed at one time as can be used at once before it can set. No mortar, which has once caked or begun to set, shall be used, nor shall such mortar be remixed; but it shall be removed from the site of the work immediately.

1.12 Cement concrete

The concrete shall consist of an aggregate of the proportion by volume defined in relevant schedule item or work. Only measured quantity shall be used. The aggregate shall consist of stone ballast of quality approved by Engineer-in-charge and shall consist of graded size 20 mm and down as per relevant code.

1.13 Laying:

The cement, sand and stone chips and water shall be mixed properly in mechanical mixer in such a manner as to avoid loss of water. The concrete shall be mixed for minimum period of 2 minutes or until it is of even colour and uniform consistency throughout. As soon as the concrete is mixed it should be removed to the work in iron vessels as rapidly as practicable. The concrete laid will be vibrated for compaction by the vibrators. Slum test will be carried at site during execution of work.

1.14 Curing:

The concrete laid shall not be disturbed and shall be kept thoroughly damped by means of ponding, wet matting and sand for minimum period of 14 days.

1.15 Forms:

Contractor shall furnish on the site of work sufficient number of centering, moulds or templates for its expeditious execution. The forms shall be made in such a way and of such materials as will ensure a smooth surface on the finished concrete. Forms and centering shall be left in place until the concrete has set sufficiently to permit the removal without danger to the structure.

1.16 Brick masonry work

Materials:

The brick works shall consist of bricks and cement mortar in accordance with general specification and plans.

Soaking bricks:

All bricks shall be soaked in clean water in tank for a period of at least twenty-four hour immediately before use. The contractor shall provide at his expense tanks of sufficient capacity to admit of the simultaneous immersion of bricks for the work its normal rate of progress.

Laying:

All the best shaped uniformly colored bricks shall be picked out and used for face work without any extra payment to the contractor. All bricks work shall be constructed in English bond and shall follow the type bond junctions etc. All courses unless otherwise specified or ordered by the Engineer in charge shall be truly horizontal and the walls shall be taken up truly plumb. Mortar joints shall never exceed 10 mm in thickness and this thickness shall be uniform throughout. Vertical joints in alternate courses shall not come directly over one another. The joints shall be raked out not less than 12mm deep when the mortar is green so as to provide proper key for the plaster or pointing to be done. Each face brick shall be set with both bed and vertical joints quite full of mortar. No damaged or broken brick shall be used in any part of the work except such as may be cut to size for closing the course. Closers shall be clean out to size as indicated in English bond and shall be situated near the end of walls. The masonry shall be carried up regularly and no step shall be allowed more than 60cm. Where the masonry of one part has to be delayed, the work must be raked back at an angle not exceeding 45 ° Angles and Junctions. At all angles forming the junction of walls, the brick shall at each alternate course be carried into their respective walls so as to thoroughly unite the work with English bond. Care shall be taken that when a brick is left out to allow support for the scaffold pole on the wall face, such brick shall always be a header and that not more than one header for each pole shall be left out.

1.17 Scaffolding:

Proper scaffolding shall be provided whenever necessary having two sets of vertical supports and shall be subject to the approval of the Engineer in charge; who may order the contractor to alter or strengthen the scaffolding if he considers it necessary, without thus becoming responsible either for the safety of the work or workmen or for any additional payment. Holes shall be made good by bricks to match the face work when scaffolding is removed.

1.18 Curing:

All bricks work shall be kept well watered for 7 days after laying.

1.19 Reinforced Cement Concrete:

All R.C.C. work shall be of the grade M15, M20, M 25 as per design requirement and as given in specifications. The materials will be measured when dry. The stone chips should be thoroughly washed in clean water and stacked. Vibrator will be used for all R.C.C and P.C.C work. The aggregate shall consist of stone aggregate of quality approved by Engineer-in-charge and shall consist of graded size 20 mm and downwards as per PWD specification and as per relevant code of IRC & BIS or the size mentioned in the item description.

1.20 Laying:

Cement, sand and stone chips shall be mixed properly in a mechanical mixer in such a manner as to avoid loss of water. The concrete shall be mixed for minimum period of 2 minutes or until it is of even color and uniform consistency throughout. As soon as the concrete is mixed it should be removed to the work in iron vessels as rapidly as practicable. The concrete laid will be vibrated for compaction by vibrators. Slump test will be carried at site during execution of work.

1.21 Curing:

The concrete laid should not be disturbed and shall be kept damped by means of ponding, wet matting and sand for minimum period of 14 days

1.22 Forms:

Contractor shall furnish on the site of work sufficient number of centering, forms, moulds or templates for its expeditious execution, the forms shall be made in such way and of such material as will ensure a very smooth surface on the finished concrete. Forms and centering shall be left in place until the concrete has set sufficiently to permit the removal without danger to the structure.

1.23 Reinforcement:

Steel bars for reinforcing concrete shall be of such shape to afford an approved mechanical bond with concrete to ensure intimate control between steel and concrete. Steel reinforcement shall be either mild steel of tested quality confirming to IS-432-1996 or cold worked steel high strength deformed bars as per IS-1786-1979 in strength grade Fe-415 or hot rolled high yield strength steel deformed bars with minimum yield strength of 425 N/mm² as per IS – 1939 –1966 (Amended 1968) Reinforcement bars will be rejected if the actual weight vary more than 5% from the standard weight. All bars must conform to the requirement of Indian standard specification. They shall be protected at all time before placed in the concrete from mechanical injury and the weather and when placed in the work, they shall be free from dirt, scales, loose or scaly rust, paint and oil. Bars which are to be embodied in concrete but remain exposed for sometime after being placed in the work shall, if directed be immediately coated with a thin grout of equal part of cement and sand. Bars shall be bend to the shape shown on the drawings and in conforming to approved templates. When bars are cut and bent on the work site the contractor shall employ competent men and provide the necessary appliances for the purpose. All steel shall be rigidly held in place with 18 gauge annealed steel wire, cement mortar (1:2) cubes. M.S. chairs and spacer shall be used in order to ensure accurate positioning of reinforcement. All joints in steel reinforcement shall be overlapped. The length of overlap for tension and compression shall be as per the requirement of Indian standard specification. In water retaining structures a clear cover of 25 mm over steel should be provided.

1.24 Construction Joints

Construction joints shall be provided, where directed approved by the Engineer-in-charge. Such joints shall be kept in minimum and shall be right angles to the direction of main reinforcement. In case of column and walls the joint shall be horizontal and 8 to 15 cm below the bottom of the beam or slab running into the column or wall head or below the anchor reinforcement of beam and slab coming into the column and wall and the

portion of the column or wall between the stopping level and the top of slab shall be concerted with the beam or slab.

1.25 Vertical Joints

At the end of any days work or run of concrete, the concrete should be finished off against temporary shutter stop, which should be vertical and securely fixed. This stop should be removed as early as weather permits.

1.26 Horizontal Joints:

Horizontal joints should be washed down two hours after a casting in the manner described above for vertical joints. If the concrete has been allowed to hard excessively, the surface shall be chipped over its whole surface to depth of at least 10 mm and there after thoroughly washed. Before fresh concrete is added on the other side of a construction joints, the surface of the old concrete will be thoroughly wetted then covered with a thin layer of cement mortar (1:2). All the construction joints in all concrete structure having contact with water or soil shall be provided with approved PVC water stops on both side with hot asphalt or approved metallic strips.

1.27 Expansion joints:

Expansion joints shall be provided as per design and drawings and wherever directed by the engineer in charge, or where necessary as per standard specification and practice. The filler to be used shall be of approved material.

1.28 Cube test:

Cube test for all RCC work of all components at all stages, shall be done in lab and its compressive strength should be within the allowable limit.

1.29 Cement Plaster:

12 mm thick cement plaster in (1:4) proportion shall be applied on outside surface of all concrete works from 30cm below ground level up to top. The surface in contact with water will have 12 mm thick cement plaster of not less than (1:3) proportion with 3% water proofing compound. The concrete surface shall be properly hacked, washed, cleaned and applied with thick cement slurry before applying. All brick work unless otherwise specified will be plastered externally and internally with 12mm cement plaster (1:6) proportion. The plaster shall be protected from sun, rain and frost at the contractor's expense by such means as the Engineer in charge may approve. To protect the plaster from the sun, ordinarily the whole surface shall be covered with wet sacks. The contractor shall keep the plaster continuously waited for a period of seven days after application.

1.30 Flooring

Except where in otherwise specified flooring will have minimum 15cm thick sand filling, one brick flat soling and 150mm thick dry rammed khoa beaten up to 112mm as base in ground floor and 25mm thick 1st class patent stone flooring shall be provided over this base. In case flooring in raw water pump house 25mm patent stone flooring shall be provided directly over R.C.C. slab in strip placed in suitable manner to avoid construction cracks.

1.31 Door and Window:

All the doors and windows shall be of good quality well seasoned and well-dressed Sal wood with oxidized iron fittings. All windows shall be provided with M.S. grill of approved design. Rolling shutter of approved make with pusher and pull operated properly fabricated with M.S. lathers including all accessories and necessary fitting of approved quality as per PWD specification will be provided in the pump house. All the doors and windows shall be painted with two coats of enamel paints over a coat of primer. The materials, the size, the shape and the fitting of doors and windows shall be approved by Engineer in Charge before put in position.

1.32 RCC Works and Roof treatment:

All R.C.C. works shall be carried out in M20 grade, as per the design approved/ provided by Department .
The roof shall be treated with suitable water proofing treatment as per specifications.

1.33 Weather coat/Snowcem Wash:

All the building shall have two coat of synthetic weather coat of approved shade over a coat of cement primer including preparing the plastered surface smooth with sand paper, scaffolding, centering etc. all complete as per building specification.

1.34 Painting:

All steel or wood shall have two coats of synthetic enamel paint over a coat of primer as specified by the manufacturer of the paint. The make, shade and color of the paints shall have to be approved by the Engineer-in-charge before use.

1.35 Pipe Works

- (i) All pipes, like D.I., C.I., P.V.C., G.I., M.S., MDPE and CPVC etc will be of the best quality confirming to respective relevant I.S. codes specifications.
- (ii) All pipes will be laid as per the provision of relevant BIS specifications.

1.36 Testing

The line of pipes after laying and jointing shall be tested to a pressure at least doubles that of working pressure. Labour for testing the pipes at his own expense.

1.37 Painting:

All exposed surface of pipes, specials valves, Steel doors and windows, etc, shall have two coats of synthetic enamel paint of approved shade over a coat of red oxide primer etc all complete as per approval and direction of the Engineer-in-charge

1.38 TUBEWELL

- **EQUIPMENT AND ACCESSORIES**

1 The equipment and accessories for drilling and construction of tube wells consisting of derrick, suitable cables and reels for handling the tools and lowering the well pipe in the boreholes, a rotary table for rotating the drill pipe and bit, pumps for handling mud fluid, etc., complete, shall be supplied by the Contractor for successful operation of the drilling. These shall be of standard type and shall have the approval of the Engineer-in-Charge. The Contractor shall maintain them in good condition throughout the progress of the work.

2 The capacity of the rig shall be adequate so as to reach the desired termination depth.

- **DRILLING TIME LOG**

1. As the drilling progresses, an accurate drilling time log shall be kept indicating the time taken to drill each 3.0 m depth. This log will enable interpretation regarding the nature of the formations (hard, soft, unconsolidated, etc.) which has a bearing on the water yielding capacity of the formations.
2. After the completion of drilling up to the desired depth, the borehole shall be electrically logged to collect adequate information about the conditions of the formations.

- **DESIGN AND LOWERING OF PIPE ASSEMBLY**

1 From the data collected about the nature of the aquifers met, the Contractor shall design the tube wells in respect of size and length of the housing pipe, blank pipes, pea-gravel shrouded slotted or perforated pipes, and bail plug etc. However, in practice the actual length of each of the housing pipes, blank pipes and pea gravel shrouded pipes may be kept as multiple of the length of the pipes available in the market, provided there is no difficulty, such as intrusion of water from a saline aquifer and gradation in the texture of formation material.

2 The sizes of perforation or slots for pea-gravel shrouded strainer pipes shall be so designed that the total opening available is adequate to pass the water in filtering from the aquifer without exceeding the critical velocity.

3 In case of patented pea-gravel shrouded strainers, the manufacturer's directions shall be followed to obtain the best results.

- **GRAVEL PACKING OF TUBEWELL**

1 All gravel shall consist of hard well-rounded particles reasonably uniform in diameter and shall be of a size determined after analyzing the character of the water bearing formation to be packed. A minimum thickness of 150 mm of the pea-gravel shroud around the strainer pipes shall be provided to prevent inflow of sand from the aquifer under normal operating conditions.

2 With the hydraulic rotary drilling, the pipe assembly shall be lowered into the borehole in position and gravel-packing shall be done up to the bottom of the housing pipe. Verticality of the housing pipes shall then be tested and the defects, if any, shall be rectified. Thereafter, the gravel-packing up to the top shall be completed. The feeding of the gravel shall be done in such a manner that there should not be any bridging in the annular space. To avoid bridging, the circulating fluid shall be pumped to agitate the gravel during feeding of gravel.

- **PLUMBNESS AND ALIGNMENT**

1 The verticality shall be checked immediately after the housing pipes are installed but prior to commencing the gravel filling.

2 If the tubewell pipe assembly is found inclined before filling the gravels, the assembly shall be pulled in desired direction by applying force through jacks or by other means with a view to rectify the slantness and bring the pipe assembly within the permissible limits of verticality.

The gravel filling operation shall then be undertaken immediately after the verticality has been rectified and tested. If necessary, remedial measures should also be adopted in between by means of jacks or any other means to bring the pipe assembly within the permissible limits of verticality.

3 For tube wells encased with pipes less than 350 mm diameter, the verticality of the tubewell shall have a deviation not exceeding 5 cm per 30 m of depth of the tubewell and the deviation shall be in one

direction and in one plain only. The verticality of the tubewell shall be determined according to the method described in Clause No.7.9.4 of IS: 2800.

- **DEVELOPMENT OF TUBEWELL**

After completion of gravel packing, the dirty water from the tubewell shall be pumped out and the development of the tubewell shall be carried out as under in the presence of Engineer-in-Charge who will issue a certificate to the Contractor for the satisfactory completion of the test.

1 The well shall be developed either by surging, including washing and agitating, or by over pumping and back-washing with an air lift. The development process shall be continued until the stabilization of sand and gravel pack is completely assured.

1.1 Initial development of tubewell shall be carried out by means of compressed air. The compressor to be used for this purpose shall have minimum capacity of 10 cu.m./minute under a pressure of 7.5 kg / cm² (Compressor etc., for the above test shall be provided by the Contractor at his own cost).

1.2 A suitable diameter of pipe for air supply, approved by the Engineer-in-Charge shall be lowered into the well. The air shall be released suddenly into the tubewell by means of quick opening of valves. The bottom of the air pipe shall be moved up to and down along the aquifer depth to agitate the aquifer evenly.

1.3 Development by air injection and pumping shall be continued till the sand free water is obtained to the satisfaction of the Engineer-in-Charge.

2 After the initial development is completed, the tube wells shall be further developed by means of deep well turbine pump (to be provided by the Contractor for the test at his own cost).

2.1 The discharge of the pump during development shall correspond to a draw-down of 50% higher than the normal drawdown at which the tubewell will be working during its normal continuous operation. The pump shall be fitted with a depth gauge and pressure gauge.

2.2 The development of tubewell shall be continued till:

- a) The tubewell ceases to absorb further gravel.
- b) A specific capacity at a given RPM becomes constant and
- c) The water remains sand free with maximum tolerance of 10 parts of sand in one million parts of water by volume after 30 minutes continuous running of the pump.

2.3 In case, the condition under clause No. 2.2 is achieved earlier than 12 (twelve) hours from the starting of the pumping operation, the Contractor shall continue the pumping operation for not less than 12 (twelve) hours.

2.4 The tubewell shall be further pumped for at least 4 (four) hours and pumping level shall be measured by the Contractor at an interval of every one hour and shall be passed on to the Engineer-in-Charge.

2.5 After the development of tube well, the Contractor shall remove all material, which might have accumulated by the side of the tubewell to a place directed by the Engineer-in-Charge at no extra cost to the Owner / Consultant.

2.6 Where a depression of 50 percent higher than the normal depression cannot be arranged, the tubewell may be over-developed so as to yield a discharge 20 percent excess of the rated discharge

2.7 At the end of development of Tubewell, water sample will be collected and analyzed for the 16 parameters (pH Value; Turbidity, NTU, Max.; Conductivity $\mu\text{mho/cm}$; Total Dissolved Solid, mg/l Max.; Total Hardness (as CaCO_3), mg/l, Max.; Calcium (as Ca), mg/l, Max.; Magnesium (as Mg), mg/l, Max.; Chloride (as Cl), mg/l, Max.; Alkalinity (as CaCO_3), mg/l, Max.; Iron (as Fe), mg/l, Max.; Nitrate (as NO_3), mg/l, Max.; Sulphate (as SO_4), mg/l, Max.; Fluoride (as F), mg/l, Max.; Arsenic (as As), mg/l, Max.; Manganese (as Mn.), mg/l, Max. & Bacteriological Test). Water Sample of the Tubewell will be handed over to concerned District Laboratory with advice to analyse the sample for aforesaid parameters. Based on the Test Report, the Water Treatment Plant will be designed and supplied.

The following Indian standard shall be referred to:-

(a) For construction and testing

- (i) I.S.2800 (Part-I) :1991 (Reaffirmed 2001)- Code of practice for construction & testing of tube wells/Bore wells.
- (ii) I.S. 2800(Part-II):1979 (Reaffirmed 1999)- Code of practice for construction & testing of tube wells/Bore wells.

(b) For Gravel pack:

I.S. 4097-1988(Reaffirmed 1999): Specification for Gravel for use as pack in tube wells

(c) For Tubewell development:

I.S. 11189-1985(Reaffirmed 1999): Methods of tubewell development.

(d) For Casing and housing Pipes:

I.S. 12818: 1992 Unplasticized PVC screen and casing pipes for bore/tube well- specification.

1.40 Pumps and Accessories:

All the pumps should be as per latest version of IS 8034, Pump selection and installation shall be as per latest version of IS 14536 . The submersible cable shall be 3 core 2.5mm^2 flat copper conductor submersible cable as per latest version of IS: 694. All the sockets and specials used in Riser Pipe Should be ISI marked and of Heavy quality.

2.0 GENERAL SPECIFICATIONS

2.1 General

This part covers conditions pursuant to the contract and shall supplement the general conditions, detailed specifications and requirements.

1.2 Limits of Contract

Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures and standard accessories, normally provided with such equipment and /or need for erection, completion, and safe operation of the equipment as required by applicable codes, though they may not have been specifically detailed in the technical specifications unless included in the list of exclusions. All similar standard equipment provided shall be interchangeable with one another.

1.3 Engineering Data

The contractor shall furnish complete engineering data of each set of equipment such as name of the manufacturer, the type of model of each principle item of equipment proposed to be furnished and erected. Standard catalogues, pages and other documents of the tenderer may be used in the tender to provide additional information and data as deemed necessary by the tenderer. The review of this data by an Engineer will cover only general confirmation of the data to the specifications and documents interfaced with the equipment provided under the specifications, external connection and of the dimension, which might affect plant layout. This review by the Engineer in charge may not indicate a thorough review of all the dimensions, quantities and details of the equipment, materials, any devices of the items indicated or accuracy of the information submitted. This review or approval by the Engineer in charge shall not be construed by the contractor and limiting his responsibilities and liabilities for mistakes, and deviations from the requirements specified under these specifications and documents. All engineering data submitted by the contractor after final process including review and approval by the Engineer in charge shall form part of contract documents and the entire work covered under these specifications shall be performed in the strict conformity unless otherwise expressly requested by the Engineer in charge.

1.3.1 Drawing

Each drawing submitted by the contractor shall be clearly marked with the name of the owner, unit designation, the specifications, number and name of the project. If standard catalogue pages are submitted the applicable items shall be marked therein. All titles, noting, markings and writings on drawing shall be in English. All dimensions shall be in metric units. All manufacturing and fabrication work in connection with the equipment prior to the approval of the drawing shall be at contractor's risk. The contractor may make any changes in the design which are necessary to make the equipment conform to provisions and intent of contract and such changes will again be subject to the approval of the Engineer in charge and shall not relieve the contractor of any of the responsibilities and liabilities under contract.

1.3.2 Design Improvements

The Engineer or Contractor may propose changes in the specifications of the equipment or quality thereof and if the parties agree upon any such changes the specifications shall be modified accordingly. If any such change agreed upon in such that it affects price and schedule of completion, the parties shall agree in writing as to the extent of changes in period and or schedule of completion before the contractor proceeds with the change. Following such agreements, the provisions there of shall deemed to have been amended accordingly.

1.3.3 Transportation

The contractor whenever applicable shall after proper painting pack and cart all equipments in such manner as to protect them from damage and deterioration in transit by road or rail, during storage at site till the time or erection. The contractor shall be held responsible for all damages due to improper packing. While packing all the materials the limitations from point of view of availability or railway wagons, size and other modes of transport should be taken into account. The packing and protection should be in conformity with the requirements of the insurance companies and transport agencies. The contractor shall prepare detailed packing list of all packages and containers, bundles and loose materials forming each and every consignment

for making all necessary arrangements for loading, unloading and other handling, right from his works up to the site and also till the equipment is erected, tested and commissioned. He shall be solely responsible for proper storage and safe custody of all equipment.

All demurrage, warehouse and other expenses incurred due to delay in clearance of the material or any other reasons shall be to the account of contractor.

1.3.4 Protection to plant

All coated surfaces shall be protected against abrasion, impact, discoloration and any other damages. All exposed threaded portion shall be suitably protected with either metallic or non-metallic protective devices. All ends of the valves and piping and conduit equipment connections shall be properly sealed with suitable devices to protect them from exposure to weather and should also be properly treated and protected in suitable manner.

1.3.5 Preservative shop coating

All exposed metallic surfaces subject to corrosion shall be protected by shop application of suitable coating. All surfaces which will not be easily accessible after the shop assembly, shall before hand be treated and protected for the life of the equipment. All surfaces shall be thoroughly cleaned of all mill-scale, oxides and other coatings prepared in the shop. Surfaces that are to be finish painted after installation or require corrosion protection until installation shall be shop painted with at least two coats of primer.

1.3.6 Material handling and storage

All the equipment furnished under the contract and arriving at site shall be promptly received unloaded, transported and stored in a storage space by the contractor. Contractor shall be responsible for examining all the shipment and notify the Engineer in charge immediately of any damages, storage, discrepancy that is for the purpose of the Engineer's information only. The contractor shall submit to the Engineer in charge every week, report detailing all receipts during the week. However the contractor shall be solely responsible for any storage on damage in transit handling and / or in storage and erection of equipment at site. The contractor shall maintain in accurate exhaustive record detailing out the list of all equipment received by him for the purpose of erection and keep such record open for inspection of the Engineer in charge. All the equipment shall be handled carefully to prevent any damage or loss. The Engineer in charge in addition may direct contractor to move certain other materials, which in his opinion will require indoor storage, and the contractor shall strictly comply with it.

1.3.7 Contractor's material brought to Site.

The contractor shall bring to site all equipment components, parts, materials including construction equipment tools and tackle for the purpose of the work under intimation to the Engineer in charge. All such goods shall from time of their being brought vest in the owner but may not on any account be removed or taken away by the contractor without written permission from the Engineer in charge. The contractor shall nevertheless be solely liable and responsible for any loss or destruction thereof and damage there to. Contractor shall make efforts at his end to get the materials, equipment, machinery etc. insured. Any loss, damage, or theft after the supply or during the construction or maintenance period shall be the sole responsibility of the contractor. The owner shall have lieu on such goods for any sum or sums, which may at the time be due to owing to him by the contractor. After giving 15 days notice in writing of his intention to do so, the owner shall be at liberty to sell and dispose of any such goods in a manner as he shall think fit

including public Auction or private treaty and to apply the proceeds in or towards completion of work, the contractor shall remove from the site under the directions of the Engineer in charge, the material such as construction equipment, erection tools and tackles, scaffolding etc. within 15 days of issue of a notice by the Engineer in charge to do so. Then the Engineer in charge shall have the liberty to dispose off such materials and credit the proceeds thereof to the account of the contractor.

1.3.8 Maintenance tools and tackles

The contractor shall supply with the equipment one complete set of all special tools and tackles for the erection assembly and maintenance of the equipment. However, these tools and tackles shall be separately packed and brought to site. The tenderer shall indicate all the above items in the annexure. This set shall be for owner's use and any of the equipment out of this set shall not be used by the tenderer.

1.3.9 Construction management

Time is the essence of the contract and the contractor shall be responsible for performance of his works in accordance with the specified construction schedule. If at any time the contractor is falling behind the schedule, he shall take necessary action to make good for such delays by increasing his work force or by working over time or otherwise accelerate the progress of work to comply with the schedule and shall communicate such action in writing to the Engineer in charge satisfying that his actions will compensate for delay. The contractor shall not be allowed any extra compensation for such action.

1.3.10 Field office records

The contractor shall maintain up to date copies of all the drawings, specifications and other contract documents and any other supplementary data complete with the latest revision thereto. The contractor shall maintain in addition continuous record of all the changes to the above contract documents, drawings, specifications, supplementary data etc affected at the field and on completion of his total assignment under the contract shall incorporate all such changes on the drawings and other Engineering data to indicate as installed conditions of the equipment furnished and erected under contract such drawings and engineering data of equipments erected under the contract shall be submitted to the Engineer in charge in number of required copies.

1.3.11 Design Co-ordination

The contractor shall be responsible for the selection and the design for appropriate equipments to provide best-coordinated performance of entire system. The basic design requirements are detailed out in technical specifications. The design of various components, sub assemblies, assemblies, maintenance, and all rotating components shall be so selected that the natural frequency of the complete unit is not critical at or close to the operating range of the unit.

1.3.12 Quality Assurance Program

To ensure that the equipment and services under the scope of this contract whether manufactured or performed within the contractor's premises or at the owner's site or at any other place of work are in accordance with the specifications. The contractor shall adopt suitable quality assurance programs to control such activities at all the points necessary. Such program shall be outlined by the contractor and shall be finally accepted by the Engineers after discussions before the award of contract and such agreed program shall form part of contract.

1.3.13 Unfavorable working conditions

The contractor shall confine all his field operations to those works which can be performed without subjecting the equipment and materials to adverse effects during inclement weather conditions like monsoon, storms etc. and during other unfavorable construction conditions. No field activities shall be performed by the contractor which might adversely affect the quality and efficiency thereof, unless special precautions or measures are taken by the contractor in a proper and satisfactory manner in the performance of such works and with the concurrence of Engineer in charge, such unfavorable conditions will in no way relieve the contractor of his responsibility to perform the works as per schedule.

1.3.14 Noise and Vibrations

The equipment supplied and erected by the tenderer will comply best design and erection practice and its working shall be within permissible noise and vibration levels.

1.3.15 Rating plates, Nameplates and Labels

Each main, auxiliary item of plate is to have permanently attached to it in a conspicuous position a rating plate of non-corrosive metal upon which is to be engraved any identifying manufacturers name, equipment type or serial number together with details of loading conditions under which the items plant in question has been designed to operate and such diagram plates as may required by the Engineer in charge. Each item of plant is to be provided with a nameplate or label designating the service of the particular equipment. The inscriptions are to be approved by the Engineer in charge or shall be as detailed in the appropriate sections of the technical specifications. Such name plates or labels are to be white non hygroscopic material with engraved black lettering on alternatively in the cast of indoor circuit breakers etc. if transparent plastic material with suitably, colored, lettering engraved on the back. Items of plant such as valves, which are subject to handling, are to be provided with an engraved chromium plated nameplate or label with engraving filled with enamel.

1.3.16 Foundation, Dressing and Grouting

The surfaces of the foundations shall be dressed to bring the top surface of the foundations to the required level prior to placement of the equipment/equipment bases on the foundations. All the equipment bases and structural steel plates shall be grouted and finished as per these specifications unless otherwise recommended by the manufacturer. The concrete foundation surfaces shall be properly prepared by chipping, grinding as required to bring the type of such foundation to the required level to provide necessary roughness for bondage and to assure enough bearing strength. All laitance and surface film shall be removed and cleaned.

1.3.17 Painting

All the exposed metal parts of equipment including piping, structures, railings etc. wherever applicable after installation unless otherwise surface protected shall be first painted with at least one coat, rust, scales greases oil and other foreign materials shall be removed by wire brushing scraping or sand blasting and approved by the Engineer in charge for painting. Afterwards the above parts shall be finished with two coats of alloyed resin machinery enamel paints. The quality of finished paints shall be as per standards of relevant IS or equivalent and to be of the approved color by the Engineer in charge.

1.3.18 Color code for pipe services

All pipe services, wherever applicable are to be painted in accordance with the owner's color scheme by the contractor.

1.3.19 Training of owner's personnel

The contractor shall undertake to train, free of cost personnel selected and sent by the owner

1.3.20 Consumables, oils, Lubricants.

All consumables such as chemicals, oil lubricants etc. which will be required to put the equipment covered under scope of specifications in successful trial run and operations & maintenance shall be furnished by the contractor.

1.3.21 Check out of control systems

After completion of wiring and cabling the contractor shall check out the operation of all control systems for the equipment furnished and installed under the specifications and documents.

1.3.22 Equipment Performance Guarantee

The performance guarantee of the equipment under contract is detailed separately in technical specifications. This guarantee shall supplement the general performance guarantee provisions covered under general terms and conditions.

1.3.23 Guarantee

a) In the event of an emergency wherein the judgment of the Engineer in charge, delay would cause serious loss or damage, repairs or adjustments may be made by the Engineer in charge or a third party chosen by the Engineer in charge without advance notice to the contractor and the cost of such work shall be paid by the contractor or by the surety. In the event such action is taken by the Engineer in charge, the contractor will be notified promptly and he shall assist wherever possible in making the necessary corrections. This will not extinguish the contractor's liability under terms and condition of contract.

b) The cost of any special or general overhaul tendered necessary during the operation period due to defects in the plants or defective work carried out by the contractor, the same shall be borne by the contractor.

c) In case of those defective parts which are not repairable at site but are essential for the commercial operation of the equipment, the contractor and the Engineer shall mutually agree to a program of replacement or renewal which will minimize interruption to the maximum extent in the preparation of the equipment

d) At the end of guarantee period, the contractor's liability ceases except for latent defects in respect of goods supplied by sub-contractor to the contractor where a larger guarantee is (more than twelve months) is provided by subcontractor, the owner shall be entitled the benefit of such guarantee.

e) The provisions contained in this clause will not be applicable.

1) If the owner has not operated the equipment according to generally approved industrial practices in accordance with the conditions of operation specified and in accordance with operating manuals if any.

2) In case of normal wear and tear at the parts to be specifically mentioned by the contractor in the offer.

Commissioning spares

The contractor shall make arrangements for an adequate inventory at site, of necessary commissioning spares prior to commissioning of equipments furnished and erected so that any damage or loss during these commissioning activities necessitating the requirements of spares will not come in way of timely completion of works under contract.

Registration and statutory Inspection

All the registration and statutory inspection fees if any in respect of work pursuant to this contract shall be to the account of contractor. Should any such inspection on registration need to be re-arranged due to the fault of contractor, the additional fees for such inspection shall also be borne by the contractor.

Progress Reports and Photographs

During various stages of works in pursuant of the contract the contractor shall at his own cost submit periodic progress reports as may be reasonably required by the Engineer in charge with such materials as charts, networks, photographs, test certificates etc. Such progress reports and photographs shall be in the form and size as may be required by the Engineer in charge and shall be submitted in at least three copies and shall contain the date, the name of the contractor and the title of the photographs. The report shall also indicate reasons for variance between the schedule and actual progress and the action proposed for corrective measures whatever necessary.

Work and Safety Regulations

a) The contractor will notify the Engineer in charge of his intention to bring on to the site any equipment or any container with liquid or gaseous fuel or other substance, which may create hazards. The Engineer in charge shall have right to prescribe the condition under which such equipments or container may be handled and used during the performance works and the contractor shall strictly adhere to such instructions. The Engineer in charge shall have the right to inspect any construction plant and to forbid its use if in his opinion it is unsafe, no claim due to such prohibition shall be entertained by the owner.

b) Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives the contractor shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulations laid down in Petroleum Act 1934 Explosive Act 1948 and petroleum and carbide of calcium manual. All such storage shall have prior approvals necessary from chief Inspector of Explosives or any Statutory Authorities. The contractor shall be responsible for obtaining the same.

Contractor shall make necessary arrangements for the following

I) It is necessary to carry out the testing of number of equipments in the manufacturers works. This is stated in the item wise specification. However, the items, listed above and the items which are not listed above may require third party inspection at manufacturer's end.

II) The arrangements for this shall be arranged by the contractor, the cost of testing in factory payable to manufacturer (including power charges etc.). The testing fees of inspecting authorities etc. shall be arranged by the contractor without any extra cost to the department.

Whenever department Engineers will be attending the inspection and testing, to and fro charges will be borne by the department as per Govt. civil service rules. However; all other arrangements shall be made by the contractor.

III) The Engineer-in charge if requires may perform at his end by himself or his representative third party tests of materials supplied viz. uPVC pipes, HDPE pipes etc.

IV) The owner through his authorized representative may also perform third party inspections of the items listed above or the materials listed in sl. No. III.

Illumination to the pump house.

Necessary illumination shall be provided in and out at pump house as per direction of engineer-in-charge.

SECTION 7
BILL OF QUANTITY
(To Be Kept in Financial Bid Envelope)

BILL OF QUANTITIES

Preamble

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications 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 the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices 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. The rates and prices shall be quoted entirely in Indian Currency.
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related items of work.
6. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant section of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
7. The method of measurement of completed work for payment shall be in accordance with the specification issued by the department time to time.
8. Errors will be corrected by the Employer for any arithmetic errors pursuant to Clause 29 of the Instructions to Bidders.

NAME OF WORK-	Part I: Fixed
	Operation of piped water supply schemes by deploying pump operators and payment of electricity charges and
	Part II: Variable
	Comprehensive maintenance of Ward level water supply schemes, mini piped water supply schemes etc. i/c the cost of chemicals, overhauling of filter media and related appurtenances, cleaning of ESR and campus, maintenance viz. cleaning painting of pump house, staff quarters, boundary wall, repair of leakages in distribution line, repair and provision of new FHTCs, repair and maintenance of pumps and other electromechanical components etc. all complete as per the directions of Engineer-in-charge. in
	Blocks: All 09 Block in Munger District. No. of schemes: 312
	WLS (Non Quality): 174
	WLS (Quality): 127
	PWS/SVS : 11
Date of Tender :-	04.06.2026
Estimated Cost :-	2950.09524 Lakh
Earnest Money :-	39.501 Lakh
Duration of Maintenance Period	5 Years
Cost of BOQ :-	As per Eproc2
<i>SCHEDULE- 'A'</i>	

SI NO.	PARTICULARS	No. of Scheme	AMOUNT
1	2	3	4
1	I. Operation of piped water supply schemes by deploying pump operators and payment of electricity charges and II. Comprehensive maintenance of Ward level water supply schemes, i/c the cost of chemicals, overhauling of filter media and related appurtenances, cleaning of ESR and campus, maintenance viz. cleaning painting of pump house, staff quarters, boundary wall, repair of leakages in distribution line, repair and provision of new FHTCs, repair and maintenance of pumps and other electromechanical components etc. all complete as per the directions of Engineer-in-charge.	WLS (Quality): 127 WLS (Non Quality): 174 PWS/SVS-11	2950.09524 Lakh
Total Amount			0.00
Rupees Crore LakhThousand Only			
SCHEDULE- B----- NIL			
SCHEDULE- C----- NIL			
1	Estimated cost	Rs. (A)
2	Cost of Govt. Material	:-	NIL NIL (B)
3	Name of the Contractor	:-	
4	Address of the Contractor	:-	
5	I/we offer in Figures..... in words..... % (Percentage) High on the rate for the fixed cost (Part I) for operation of the schemes.	IN FIG.	
		IN WORDS	

6	I/we offer in Figures..... in words..... % (Percentage) High / Less on the rate for the variable cost (Part-II) for maintenance of the schemes.	IN FIG.	
		IN WORDS	
7	Average rate quoted by the bidder		0.00
Note :- 1.) Bidders has to quote rate in Percentage High/Less only.			
Note :- 2.) Items/ Quantity of Work will be decided by the department on day to day / priority basis during period of maintenance.			
Note :- 3.) The quoted rate for the operation part I (fixed cost) i.e. the payment to the operators and the electricity bills, the quote shall not be negative.			
Note :- 4.) The electricity bills shall be paid as per actual.			
Note :- 5.) The entry in row 7 shall be considered for decision of financially lowest bid.			

PUBLIC HEALTH ENGINEERING DEPARTMENT BIHAR, PATNA

INSTRUCTIONS FOR FINANCIAL BID

A. PREAMBLE TO SCHEDULE OF PRICES

Price Schedule for Work

The Contract is of item rate type on single responsibility basis for Comprehensive operation and maintenance and Special repair (based on item rate) of Ward level Piped Water Supply Schemes based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years.

1. The billing of the works shall be done quarterly based on the item wise quoted rates and the actual quantities executed by the contractor.
2. Bidder has to quote item wise rate against the listed description of work and specifications including all levies/taxes. The sum of the item wise rates shall be considered for the selection of the lowest bidder and item wise comparisons shall not be done.
3. The tenderer is advised to examine all instructions, forms, terms, specifications and other information in the tender documents and consider and evaluate fully the price implications therein contained before filling the item wise rate.
4. The bidder should acquaint himself with the site condition including the access to work site. The successful bidder shall have to make suitable access to work sites at his own cost.
5. Items not specifically listed in this PRICE BREAKUP SCHEDULES but required to be executed for satisfactory working and commissioning of the system as specified, will be separately paid by the Department on the basis of sub estimates attached with the technical sanction provided that the per annum cost of the work is not enhanced.
6. Each item is to be individually priced and no column in the Schedule of prices shall be left blank. The items shall not be priced if it is "not applicable" to the bidder's design, in which case the bidder shall add the words "NOT APPLICABLE". The wording in the item description is for subject matter guidance only. The prices shall allow for

all the works covered under the bid all liabilities and contractual obligations whether separately specified or not.

7. The bidder shall be deemed to have allowed his price, provision for design, field investigation, site clearance, maintenance and final removal of all temporary works of whatsoever nature required for construction including pumping, dewatering, availability of material of required quantity etc. for the proper execution of works. The rates shall also be deemed to include all works and settings that may be required to be carried out for laying out of all the works involved.
8. In consideration of the fact that the pipes length of mentioned in the tender are based on surveys and the actual length in work may vary. It is intended that the variation in lengths observed during execution shall be suitably adjusted at the end of contract. For this purpose, the rates payable / deductible for increased / decreased lengths will be compared to those given in schedule and scope of work, shall be same as quoted for the respective pipe in schedule.
9. It will be entirely at the discretion of the department to accept or reject the bidder's proposals without giving any reasons whatsoever.
10. The spares and tools & tackles mentioned in tender document shall be supplied in this contract and shall be provided to the Department at the end of O & M contract period of sixty months.

SUMMARY OF COST

Particulars	Amount in figures (Total of the item wise quoted rates)
Comprehensive operation and maintenance and Special repair (based on item rate) of Ward level Piped Water Supply Schemes based on item rates; constructed by the Public Health Engineering Department including payment to the pump operators, electricity bill for five years. BLOCKS: - All 09 Blocks OF Munger DISTRICT.	2950.09524 Lakh

(Rs. In words: Twenty nine crore fifty lakh nine thousand five hundred four only)

Signature of bidder

NAME OF WORK-	<div>Part I: Fixed</div> <div>Operation of piped water supply schemes by deploying pump operators and payment of electricity charges and</div> <div>Part II: Variable</div> <div>Comprehensive maintenance of Ward level water supply schemes, mini piped water supply schemes etc. i/c the cost of chemicals, overhauling of filter media and related appurtenances, cleaning of ESR and campus, maintenance viz. cleaning painting of pump house, staff quarters, boundary wall, repair of leakages in distribution line, repair and provision of new FHTCs, repair and maintenance of pumps and other electromechanical components etc. all complete as per the directions of Engineer-in-charge.</div> <div>Block: All 09 Block in Munger District.</div> <div>No. of schemes:</div> <div>WLS (Non Quality): 174</div> <div>WLS (Quality) : 127</div> <div>PWS/SVS : 11</div>		
	Date of Tender :- 04.06.2026		
	Estimated Cost :- 2950.09524 Lakh		
	Earnest Money :- 39.501 Lakh		
	Duration of Maintenance Period 05 Years		
Cost of BOQ :- As per Eproc2			
SCHEDULE- 'A'			
SI NO.	PARTICULARS	No. of Scheme	AMOUNT
1	2	3	4

1	<p>I. Operation of piped water supply schemes by deploying pump operators and payment of electricity charges and</p> <p>II. comprehensive maintenance of ward level water supply schemes, etc. i/c the cost of chemicals, overhauling of filter media and related appurtenances, cleaning of ESR and campus, maintenance viz. cleaning painting of pump house, staff quarters, boundary wall, repair of leakages in distribution line, repair and provision of new FHTCs, repair and maintenance of pumps and other electromechanical components etc. all complete as per the directions of Engineer-in-charge.</p>	<p>WLS(Non Quality): 127</p> <p>WLS(Non Quality): 174</p> <p>PWS/SVS : 11</p>	2950.09 524 Lakh
Total Amount			0.00
Rupees Crore LakhThousand Only			
SCHEDULE- B----- NIL			
SCHEDULE- C----- NIL			
1	Estimated cost	Rs. (A)
2	Cost of Govt. Material	:-	NIL NIL (B)
3	Name of the Contractor	:-	
4	Address of the Contractor	:-	
5	<p>I/we offer in Figures..... in words..... %</p> <p>(Percentage) High on the rate for the fixed cost (Part I) for</p>	IN FIG.	

	operation of the schemes.		
		IN WORDS	
6	I/we offer in Figures..... in words..... % (Percentage) High / Less on the rate for the variable cost (Part-II) for maintenance of the schemes.	IN FIG.	
		IN WORDS	
7	Average rate quoted by the bidder		0.00
Note :- 1.) Bidders has to quote rate in Percentage High/Less only.			
Note :- 2.) Items/ Quantity of Work will be decided by the department on day to day / priority basis during period of maintenance.			
Note :- 3.) The quoted rate for the operation part I (fixed cost) i.e. the payment to the operators and the electricity bills, the quote shall not be negative.			
Note :- 4.) The electricity bills shall be paid as per actual.			
Note :- 5.) The entry in row 7 shall be considered for decision of financially lowest bid.			

SECTION 8
SECURITIES AND OTHER FORMS
(To be filled by Bidder/Employer)

BID SECURITY (BANK GUARANTEE UNCONDITIONAL)

WHEREAS, _____
[name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated _____
[date] for the construction
of _____ [name of Contract hereinafter called "the Bid"].

KNOW ALL PEOPLE by these presents that We

[name of Bank] of _____ [name of country] having
our registered office at

_____ (hereinafter called "the
Bank") are bound unto _____ [name of Employer]
(hereinafter called "the Employer") in the sum of _____

*for which payment well and truly to be made to the said Employer by the Bank itself, his
successors and assigns by these presents.

Sealed with the Common seal of the said Bank this _____ day of _____ 20 _____

THE CONDITIONS of the obligation are:

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in
the Form of Bid;

OR

(2) If the Bidder having been notified to the acceptance of his bid by the Employer during the
period of Bid validity:

- (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to
Bidders, if required or
- (b) fails or refuses to furnish the Performance Security in accordance with the Instruction to
Bidders: or
- (c) does not accept the corrections of the Bid Price pursuant to Concerned Clause

We undertake to pay to the Employer up to the above amount upon receipt of his
first written demand, without the Employer having to substantiate his demand, provided that in
his demand the Employer will note that the amount claimed by him as due to him owing to the
occurrence of one or any of the three conditions, (specifying the occurred condition or
conditions).

This Guarantee will remain in force up to and including the date
_____ **days after the deadline for submission of Bids as such
deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice
of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee
should reach the Bank not later than the above date.

DATE _____

SIGNATURE _____

WITNESS _____

SEAL _____

[Signature, name and address]

- * The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Concerned Clause of the Instructions to Bidders.
- ** 45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the Bidding documents are issued.

PERFORMANCE BANK GUARANTEE

To

_____ [name of Employer]
_____ [address of Employer]

WHEREAS _____ [name and address of Contractor]
(here after called the Contractor”) has undertaken, in pursuance of Contract No.
_____ dated _____ to execute _____ [name of
Contract and brief description of Works] (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we have hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of

_____ [amount of guarantee]*
_____ (in words), such sum being payable in the types and proportions of
currencies in which the Contract Price is payable, and we undertake to pay you, upon your first
written demand and without cavil or argument, any sum or sums within the limits of
_____ [amount of guarantee] as aforesaid without your needing to prove
or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presentation us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in India Rupees.

LETTER OF ACCEPTANCE

(Letterhead paper of the Employer)

_____ (Date)

To

_____ [Name and address of the Contractor]

Dear Sirs,

This is to notify you that your Bid dated _____ for execution of the _____ (name of the contractor and identification number, as given in the Instructions to Bidders) for the Contract Price of Rupees _____ (_____) (amount in words and figures), as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our agency.

You are hereby requested to furnish Performance Security, in the form detailed in Para 34.1 of ITB for an amount equivalent to Rs. _____ within 21 days of the receipt of this letter of acceptance valid up to 28 days from the date of expiry of defects Liability Period i.e. up to _____ and sign the contract, failing which action as stated in Para 34.3 of ITB will be taken.

Yours faithfully

Authorized Signature
Name and title of Signatory
Name of Agency

ISSUE OF NOTICE TO PROCEED WITH THE WORK

(Letterhead of the Employer)

_____ (Date)

To

_____ (Name and address of the Contractor)

Dear Sir

Pursuant to your furnishing the requisite security as stipulated in ITB Clause 34.1 and signing of the Contract for the construction of

_____ at a Bid Price of Rs

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory authorized
to sign on behalf of Employer)

AGREEMENT FORM

Agreement

This agreement, made the _____ day of _____ between _____ (name and address of Employer) [hereinafter called "the Contractor"] hereinafter called "the Contractor" of the other part.]

Whereas the Employer is desirous that the Contractor execute

_____ (name and identification number of Contract) (Hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such works and the remedying of any defects therein, at a cost of Rs. _____

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to from and be read and construed as part of this Agreement.

2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein in conformity in all aspects with the provisions of the contract.

3. The Employer hereby covenants to pay the Contractor in consideration of the Execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.

- (i) Letter of Acceptance
- (ii) Notice to proceed with the works
- (iii) Contractor's Bid
- (iv) Condition of Contract: General and Special
- (v) Contract Data

- (vi) Additional condition
- (vii) Drawings
- (viii) Bill of Quantities and
- (ix) Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written

The Common Seal of

_____ was

hereunto affixed in the presence of :

Signed, Sealed and Delivered by the said

_____ in the presence of :

Binding Signature of Employer

Binding Signature of Contractor

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s _____ agree to abide by this bid for a period _____ days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an Authorized Officer of the firm)

Title of Officer

Name of Firm

Date

Joint Bidding Agreement Format for _____ project
(To be executed on Stamp paper of appropriate value)

THIS JOINT BIDDING AGREEMENT is entered into on this the..... day of20

AMONGST

1. {Limited, a company incorporated under the companies Act, 1956} and having its registered office at(hereinafter referred to as the **"First Part"** which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. {Limited, a company incorporated under the companies Act, 1956} and having its registered office at(hereinafter referred to as the **"Second Part"** which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

3. {Limited, a company incorporated under the companies Act, 1956} and having its registered office at(hereinafter referred to as the **"Third Part"** which expression shall, unless repugnant to the context include its successors and permitted assigns)}

AND

4. {Limited, a company incorporated under the companies Act, 1956} and having its registered office at(hereinafter referred to as the **"Fourth Part"** which expression shall, unless repugnant to the context include its successors and permitted assigns))*

The above mentioned parties of the FIRST, SECOND, {THIRD and FOURTH} PART are collectively referred to as the **"Parties"** and each is individually referred to as a **"Party"**

WHEREAS,

(A)[Government of Bihar / Appropriate Authority] represented by its _____ and having its principal office at _____] (hereinafter referred to as the **"AUTHORITY"** which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited applications (**the "Applications"**) by its Request for Qualification/ Proposal No..... dated..... (the **"RFQ/RFP"**) for pre-qualification and short- listing of bidders for development and operation/ maintenance of _____ (the **"Project"**) through public Private partnership on Design, Build, Finance Operate and Transfer (DBFOT) basis.

(B) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the RFQ/RFP document and other bid documents in respect of the Project, and

(C) It is a necessary condition under the RFQ/RFP document that the members of the Consortium shall enter into a joint Bidding Agreement and furnish a copy thereof with the Application.

*The number of Parties will be shown here, as applicable, subject however to a maximum of 6 (six)

NOW IT IS HEREBY AGREED as follows:

1. Definitions and interpretations

In this Agreement, the capitalized terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFQ/RFP.

2. Consortium

2.1 The Parties do hereby irrevocably constitute a consortium (the “Consortium”) for the purposes of jointly participating in the Bidding Process for the Project.

2.2 The parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ of through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the “**SPV**”) **under the Indian** Companies Act 1956 for entering into a Concession Agreement with the Authority and for performing all its obligations as the Concessionaire in terms of the Concession Agreement for the Project.

4. Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below+:

- (a) Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Appointed Date under the Concession Agreement when all the obligations of the SPV shall become effective;
- (b) Party of the Second Part shall be {the Technical Member of the Consortium;}
- (c) Party of the Third Part shall be the {Financial Member of the Consortium; and}
- (d) Party of the Fourth Party shall be the {Operation and Maintenance Member/ Other Member of the consortium}.

5. Joint and Several Liabilities

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFQ, RFP and the

+Provide the actual details/ role/expertise of the member of the consortium

Concession Agreement, till such time as the Financial Close for the Project is achieved under and in accordance with the concession Agreement.

6. Shareholding in the SPV

6.1 The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

Party	Percentage Shareholding in the SPV
First Party:	
{Third Party:}	
Second Party:	
{Fpirtj {artu:}	

6.2 The Parties undertake that a minimum of 26% (twenty six per cent) of the subscribed and paid up equity share capital of the SPV shall be held by the Parties of the First, {Second and Third} Part whose experience (Technical) and network (Financial) are being reckoned for the purposes of qualification and short-listing of Applicants for the Project in terms of the RFQ, RFP and Concession Agreement.

6.3 The Parties undertake that each of the Parties specified in Clause 6.2 above shall, hold subscribed and paid up equity share capital of SPV as specified in the RFQ, RFP and Concession Agreement.

6.4 The Parties undertake that they shall comply with all equity lock-in requirements as set forth in the RFQ document, RFP document and Concession Agreement.

6.5 * The Parties undertake that the O&M Member shall subscribe and hold at least 10% (ten per cent) of the subscribed and paid up equity shares in the SPV in terms of the Concession Agreement (if the O&M member is included in the Consortium) of undertake to enter into an operations & maintenance (O&M) agreement with an entity having equivalent experience for a period of at least 5 (five) years from the date of commercial operation of the Project, failing which the Concession Agreement shall be liable to termination.

***Delete the alternative which is not applicable**

7. Representation of the Parties

Each Party represents to the other Parties as of the date of this Agreement that:

(a) Such Party is duly organized. Validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement;

+Add further conditions relating to O&M member, if any.

(b) The execution, delivery and performance by such Party by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:

- (i) Require any consent of approval not already obtained;
- (ii) Violate any Applicable Law presently in effect and having applicability to it;
- (iii) Violate the memorandum and articles of association, by-laws of other applicable organizational documents thereof;
- (iv) Violate and clearance, permit, concession, grant, license of other governmental authorization, approval, judgement, order of decree or any mortgage agreement, indenture of any other instrument to which such party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or
- (v) Create or impose any liens, mortgages, pledges, claims, security interests, charges or encumbrances of obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects of business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;

(c) This Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it, and

(d) there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Affiliates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfillment of its obligations under this Agreement.

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the date as specified in the RFP and in accordance with the Concession Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is either not pre-qualified for the Project or does not get selected for award of the Project, the Agreement will stand terminated in case the Applicant is not pre-qualified or upon return of the Bid Security by the Authority to the Bidder, as the case may be.

9. Miscellaneous

9.1 This Joint Bidding Agreement shall be governed by laws of {india}.

9.2 The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Authority.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED
For and on behalf of LEAD MEMBER by:

SIGNED, SEALED AND DELIVERED SECOND
PART

(Signature)
(Name)
(Designation)
(Address)

(Signature)
(Name)
(Designation)
(Address)

SIGNED, SEALED AND DELIVERED
For and on behalf of LEAD MEMBER

SIGNED, SEALED AND DELIVERED
For and on behalf of FOURTH PART

(Signature)
(Name)
(Designation)
(Address)

(Signature)
(Name)
(Designation)
(Address)

In the presence of :

Notes:

1. The mode of the execution of the Joint Bidding Agreement should be in accordance with the procedure, if any, laid down by the Applicable Law and the charter documents of the executants(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.

2. Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and documents such as resolution/ power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member.
3. For a joint Bidding Agreement executed and issued overseas, the document shall be legalized by the Indian Embassy

4. **Format of letter of Acceptance**

(The Letters of Acceptance are to be submitted separately by all the Consortium Members of the consortium on their respective Letter-Heads)

Date:

To

Name and Address of the Authority

Ref: _____

Sir,

This has reference to the for Qualification (RFQ)/ Request for Proposal (RFP) being submitted by _____ (mention the lead member of the Bidding Consortium), as Lea Member of the Bidding Consortium comprising _____ (mention name(s) of the Consortium Members) in respect of the Project “_____”, in response to the RFQ/RFP document issued by _____, on _____.

We hereby confirm the following:

1. We _____ (name of the Consortium Member furnishing the Letter of Acceptance), have examined in detail and have understood and satisfied ourselves regarding the contents mainly in respect of the following:

- The RFQ/RFP document issued by the {Name of the Authority}
- All subsequent communications between {Name of the Authority} and the Consortium, represented by_____ (Mention name of the lead Member);
- The MoU signed between/ among_____(names of the consortium Members), as members of the Consortium; and
- The RFQ/RFP being submitted by_____(name of the Lead Member).

2. We have satisfied ourselves regarding our role as_____ (here give a brief description of the role for which the strength has been offered for evaluation) for the Project as specified in the RFQ/RFP if the Consortium is awarded the Project, we shall perform our role as outlined in the RFQ/RFP to the best of our abilities. We have examined the Proposal in detail, and abided by the commitments made in the same.

3. We authorize _____ (name of the Lead Member), as the Lead Member and authorize the same to perform all tasks including, but not limited to providing information, responding to enquiries, entering into contractual commitments (arising with regard to the contracts to be entered into by the Selected Project Developer with {Name of the Authority} on Behalf of the Consortium, etc., in respect of this Project.

4. We therefore request {Name of the Authority} to consider our strengths, or experience, and our track record as specified in the RFQ/RFP submission pursuant to the conditions specified in the RFQ/RFP, for the purposes of evaluation of the RFQ/RFP submission.

For and on behalf of:

Signature:

(Authorized Signatory)

Name of the Person:

Designation:

Format for Power of Attorney for Lead Member of Consortium

(On a Stamp Paper of relevant value)

Power of Attorney

Whereas {Name of the Authority}, has invited Request for Qualification (RFQ)/ Request for Proposal (RFQ) from interested parties for_____ Project. Whereas, the Consortium Members are interested in applying for the Project and implementing the Project in accordance with the terms and conditions of the RFQ/RFP Document and other connected documents in respect of the Project, and Whereas, it is necessary under the RFQ/RFP Document for the Consortium Members to designate the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts deeds and things as may be necessary in connection with the Consortium's proposal for the Project who, acting jointly, would have all necessary power and authority to do all acts, deeds and things on behalf of the consortium, as may be necessary in connection the consortium's RFQ/RFP for the Project.

NOW THIS POWER OF ATTORNEY WITNESSES THAT;

We, M/s (Lead Member) and M/s (the respective names and addresses of the registered office) do hereby designate M/sbeing one of the Consortium Members, as the Lead Member of the Consortium, to do on behalf of the Consortium, all or any of the acts, deeds or things necessary or incidental to the Consortium's proposal for the Project, including submission of proposal, participating in conferences, responding to queries, submission of information/ documents and generally to represent the Consortium in al its dealings with {the name of the Authority}, any other Government Agency or any person, in connection with the Project until culmination of the process of Consortium RFQ/RFP and thereafter till the Agreement is entered into with {the Name of the Authority}.

We hereby agree to ratify all acts, deeds and things lawfully done by Lead member, our said attorney pursuant to this Power of Attorney and that all acts deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us/consortium.

Dated this Day of.....20.....

.....

(Executants) – (To be executed by all the members of the Consortium)

Note: To be executed only in case of a consortium and the mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

Principles of the Memorandum of Understanding

(To be executed between the consortium Members)

The Principles based on which the Memorandum of Understanding (MoU) shall be executed between/ among the consortium Members, are stated below:

1. The MoU should clearly specify the Lead Member.
2. The lead Member shall be assigned the responsibility to tie up the entire funding for the project.
3. The MoU should clearly specify the roles and responsibilities of each of the consortium Members, along with their proposed consortium share, if any.
4. The MoU should be duly signed by an Authorized Representative of each of the Consortium Members.
5. The MoU should be executed on an appropriate stamp paper.
6. The MoU should be specific to the Project.
7. The MoU should be valid for a minimum of twelve months from the last date for submission of the RFQ/RFP. The validity period should be extended on the original terms, if requested by the authority.

The Principles indicated above are the minimum requirements of the MoU.