GOVERNMENT OF HARYANA PUBLIC HEALTH ENGINEERING DEPARMENT

TENDER and CONTRACT DOCUMENT

For Procurement of Civil/Mechanical/Electrical Works under Local Competitive Bidding Procedure

Name of Work: -	Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto". App. cost Rs.81.20 lacs
Name of Agency	:
Agreement No.	:
Signature of by. Supd	It. Tender Notice No.

Contractor Witness Executive Engineer

PRESS NOTICE

Haryana Public Health Engineering Department Panchkula Public Health Engineering Division No.1, Hisar

Notice Inviting Tender

No. Dated:

1. Online bids are hereby invited on behalf of Governor of Haryana for the work mentioned below:-

Name of Work:

Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto".

App. cost Rs.81.20 lacs

Sr. No. Work	Estimate Cost	Time Limit	Earnest Money	Tender Document Fee
1.	Rs.81.20 lacs	12 Months	Rs. 1.62400/-	Rs. 5000/-

Important Dates for the activities of the bidder:-

Sr. No.	Activity	Start date & time	Expiry Date & Time
1	Downloading of tender document & payment of tender document	03.10.2013 at 11.01hours	14.10.2013 at 16.00 hours
2	Online Bid preparation, Earnest Money deposited, finalization of rate & submission of bids- Frist stage (bid seal/Hash Submission)	03.10.2013 at 11.01hours	14.10.2013 at 16.00 hours
3	Submission of online bids final Stage (Re-encryption of bids)	17.10.2013 at 16.01 hours	22.10.2013 at 10.00 hours

For further details and e-tendering schedule visit website http://haryanaphed.etenders.in.

For & on behalf of Governor of Haryana

Executive Engineer PHE Division No.1, Hisar

Contractor Witness Executive Engineer

HARYANA PUBLIC HEALTH ENGINEERING DEPARTMENT PUBLIC HEALTH ENGINEERING DIVISION NO.1, HISAR

NOTICE INVITING TENDER

Online bids are hereby invited on behalf of Governor of Haryana for the following work as mentioned below:-

Name of Work: -

Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto".

App. cost Rs.81.20 lacs

Sr. No.	Estimate	Time Limit	Earnest Money	Tender Document
Work	Cost			Fee
1.	Rs.81.20 lacs	12 Months	Rs. 1.62400/-	Rs. 5000/-
				·

- 1. Tender Documents can be downloaded online from the Portal: http://haryanaphed.etenders.in by the Firms / individuals registered on the Portal. For registration details, refer link "Guidelines to contractors for online registration" on the home page of the portal.
- 2. As the Bids are to be submitted online and are required to be encrypted and digitally signed, the Bidders are advised to obtain the same (Digital Signature Certificate) at the earliest considering the fact that the process may take at least a week. For obtaining Digital Certificate, the Bidders should follow point No.3 under "Annexure-A Condition of e-tendering".

3. Key Dates

Sr. No.	HPHED Stage	Contractor Stage	Start Date and Time	Expiry Date and Time
1	Release of Tender document	-	30.09.2013 at 10.00 hours	03.10.2013 at 11.00 hours
2	-	Downloading of Tender Document & payment of Tender Document fees	03.10.2013 at 11.01 hours	14.10.2013 at 16.00 hours
3	-	Online Bid Preparation, Earnest Money Deposit, finalization of rates & submission of bids – First stage (bid seal/ Hash Submission)	03.10.2013 at 11.01 hours	14.10.2013 at 16.00 hours
4	Technical & Financial Lock	-	14.10.2013 at 16.01 hours	17.10.2013 at 16.00 hours

5	-	Submission of Online bids Final Stage (Re-encryption of Bids)	17.10.2013 at 16.01 hours	22.10.2013 at 10.00 hours
6		Manual Submission of additional Documents	03.10.2013 at 11.01 hours	22.10.2013 at 10.00 hours
7	Open EMD /PQ bid	-	22.10.2013 at 10.01 hours	25.10.2013 at 16.00 hours
	Eligibility criteria evaluation	-	25.10.2013 at 16.01 hours	29.10.2013 at 15.00 hours
9	Open Financial/ Price-Bid	-	29.10.2013 at 15.01 hours	31.10.2013 at 16.00 hours

- 4. The Bidders can download the bidding documents from the Portal: http://haryanaphed.etenders.in Tender Documents Fees has to be paid online through payment gateway during the "Downloading of Tender Document & Payment of Tender Documents Fees" stage and Earnest Money Deposit has to be submitted through RTGS (Real Time Gross Settlement)/NEFT (National Electronic Fund Transfer) in the name of Executive Engineer, Public Health Engineering Division No.1 Hisar bank account No.31282514344, in Bank name SBI Mini Sectt. Hisar, & Bank IFSC CODE SBIN0006661. Following particulars are to be given online at the e-tendering web portal of the department.
 - a) Name of a/c holder from whose a/c payment for earnest money has been made by the agency.
 - b) A/C No.
 - c) Name of the Bank
 - d) Transaction ID
 - e) Date & time of transaction
 - f) Amount of Payment

Willing Contractors shall have to pay the Tender Document Fees through payment gateway during the "Downloading of Tender document & Payment of Tender Document fees" stage. However as details of EMD are required to be filled at the time of "Online Bid Preparation and Submission of bid – Ist stage", the <u>Bidders are required to keep the EMD details ready</u> beforehand.

- 5. The tender shall be submitted by the bidder in the following separate Envelops online:
 - 1. Earnest Money and all the documents

In support of eligibility criteria - Envelope 'ED'

2. Price Bid - Envelope 'C I'

Note: Online Bidders shall submit the EMD through RTGS/NEFT. EMD will not be accepted in parts i.e. whole amount of EMD should be deposited in one instance. Documents in support of eligibility criteria shall also be submitted in Envelope 'ED'. Price Bids are to be submitted mandatory online and shall not be accepted in any physical form. Reference of EMD is to be mentioned online

In the first instance, the Envelope – 'ED' of all the Bidders containing the statement of Earnest Money and documents supporting eligibility criteria shall be opened online as well as physically. If the Earnest Money and eligibility is found proper, the Envelop 'CI' containing financial bid shall be opened online in presence of such bidders who either themselves or through their representative choose to be present. The financial bid shall be opened only if the bidders meet the eligibility criteria as per the Bid document.

The bidder will submit the necessary documents as under:-

Envelope 'ED' - Earnest Money Deposit & Eligibility Criteria Envelope

Physical EMD Envelop – Photocopies in support of eligibility criteria and photocopy of document of transaction made in support of deposit of Earnest Money.

Online EMD Envelope—Reference details of the Earnest Money Deposit instrument and scanned copy of documents supporting deposition of EMD and eligibility criteria.

Envelope 'CI' - Price Bid Envelope

To be submitted mandatory online- "Information related to Price Bid of the Tender"

The bidder can submit their tender documents as per the dated mentioned in the schedule above:-

CONDITIONS:-

- 1) NIT if required, can be seen on any working day during office hours in office of the undersigned.
- 2) Conditional tenders will not be entertained & are liable to be rejected.
- 3) The undersigned reserves the right to reject any tender or all the tenders without assigning any reason.
- 4) The societies shall upload and produce a copy of the resolution of the Co-Operative department for etendering.
- 5) The tender without earnest money will not be opened.

- 6) The jurisdiction of court will be at Hisar.
- 7) The tender of the bidder who does not satisfy the eligibility criteria in the bid documents will be rejected summarily without assigning any reason and no claim, whatsoever on this account will be considered.
- 8) Bids would require being valid for 3 months from the date of expiry of online "Bid preparation & submission of bid Ist stage. The bid for the work shall remain open for acceptance during the bid validity period to be reckoned from the expiry date of "Online Bid preparation and submission of bid It stage". If any bidder withdraws his bid during bid validity period, any modifications in the terms and conditions of the bid, the said earnest money shall stand forfeited.

For and on Behalf of Governor of Haryana

Executive Engineer PHE Division No.1, Hisar

Endst. No. Dated

A copy of above is forwarded to the following for information and wide publicity:

- (1) Deputy Commissioner, Hisar.
- (2) Engineer-in-Chief Haryana, PHED, Panchkula
- (3) All Superintending Engineers/Executive Engineer, PHED Haryana.

For and on Behalf of Governor of Haryana

Executive Engineer PHE Division No.1, Hisar

ANNEXURE-A

CONDITIONS OF E-TENDERING

Instructions to Contractors on Electronic Tendering

- **1.** These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.
- 2. All the Contractors intending to participate in the tenders processed online, are required to get registered for the Electronic Tendering System on the Portal http://haryanaphed.etenders.in For more details, please see the information in "Guideline to Contractor for online Registration" link on the Home Page. Contractor is required to register on the portal as per the procedure defined in the guidelines. After successful completion of the registration process by the contractor, a registration no. and Company ID generated by the portal will be issued to the contractor and request for registration of the contractor will be automatically sent to Nextenders India Ltd. for approval. For the approval of registration by M/S Nextenders (India) Pvt. Ltd. The contractor is required to send a copy of the Enlistment Certificate and Pan Card along with the print of the registration no. and company ID to Nextenders (India) Pvt. Ltd. Address: M/s NexTenders (India) Pvt. Ltd. O/o PWD (B&R) Haryana, Nirman Sadan Building, (Basement) Plot No. 1 Dakshan Marg, Sector-33 Chandigarh-160020 or Email at chandigarh@nextenders.com for verification Nextenders India Pvt. Ltd. Will verify the document and approve the registration. Registration will not be approved until the above mentioned documents are submitted by the contractor. Contractor may register himself on the portal considering the fact that the process for approval may take about 5 days.

3. Obtaining a Digital Certificate:

electronically with a Digital Certificate to establish the identity of the bidder bidding online. A digital signature certificate has two keys i.e. Public Key and Private Key. Public Key is used to encrypt the data and Private Key is used to decrypt the data. Encryption means conversion of normal text into coded language whereas decryption means conversion of coded language into normal text. These Digital Certificates are issued by an approved certifying authority, by the controller of Certifying Authorities, Government of India.

- **3.2** A Digital Certificate is issued upon receipt of mandatory identity proofs and verification letters attested by the Notary Public / Charted Account / Any Gazatted Officer whose stamp bears emblem of Ashoka. Only upon the receipt of the required documents, a digital certificate can be issued.
- **3.3** The contractors may obtain Class II B digital certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities on the portal http://cca.gov.in. or may obtain information and application format and documents required for issue of digital certificate from one such certifying authority given below which is:-
 - TATA Consultancy Serivces Ltd.
 11th Floor, Air India Building, Nariman Point,
 Mumbai-400021 website www.tcs-ca.tcs.co.in
 - 2. Sify Communications Ltd.
 III Floor, Tidel Park, 4 Canal Bank Road, Taramani,
 Chennai-600113. Website www.safescrypt.com
 - 3. MTNL Trustline CA O/o DGM (IT-CA), 5515, 5th Floor, Core-V Mahanagar Doorsanchal Sadan, CGO Comples, MTNL, Delhi-110003. Website – www.mtnltrustline.com
 - 4. iTrust CA (IDRBT)
 Castle Hills, Road No.1, Masab Tank, Hyderabad,
 Andhra Pardesh -500057. Website idrbtca.org.in
 - 5. (n)Code solutions
 301, GNFC Tower, Bodak Dev, Ahmedabad-380054,
 Gujarat. Website www.ncodesolutions.com
 - 6. National Informatics Centre Ministry of Communication and Information Technology
 A-Block CGO Complex, Lodhi Road,
 New Delhi-110003. Website https://nicca.nic.in
 - 7. e-Mudhra CA
 3i Infotech Consumer Serivces Ltd
 3rd Floor, Sai Arcade, Outer Ring Road,
 Devarabeesanahalli, Bangalore560036, Karnataka
 Website http://www.e-Mudhra.com

Contractors may also obtain information and application format and documents required for issue of digital certificate from the following:-

1. **Head Office**

Nextenders (India) Pvt. Ltd. YUCHIT, Juhu Tara Road, Mumbai-400049 Email-Chandigarh@nextenders.com

2. Chandigarh Office Address

M/S Nextenders (India) Pvt. Ltd. O/o PWD (B&R) Haryana
Nirman Sadan Building (Basement)
Plot No.1, Dakshan Marg
Sector-33, Chandigarh-160020
Email-Chandigarh@nextenders.com
Landline No. +91-172-2618292

Contact persons: Manmit Sharma – 09815034028 Kanwarjeet Singh - 09592259876

- 3.4 Bid for a particular tender may be submitted only using the digital certificate, which is used to encrypt the data and sign the hash during the stage of bid preparation and hash submission. In case, during the process of a particular tender, the user looses his digital certificate (i.e. due to virus attack, hardware problem, operating system problem), he may not be able to submit the bid online. Hence, the users are advised to keep their Digital Signature Certificates in safe custody.
- 3.5 In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/power of attorney to that User. The firm has to authorize a specific individual via an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm for Public Health Engineering Department, Haryana tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm. It shall be the responsibility of management / partners of the registered firms to inform the certifying authority or Sub Certifying Authority, in case of change of authorized user and that a fresh digital certificate is procured and issued an 'authorization'

certificate' for the new user. The procedure for application of a digital certificate will remain the same for the new user.

3.6 The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

4. Set up of machine

In order to operate on the electronic tender management system, a user's machine is required to be set up. A help file on setting up of the system can be obtained from NexTenders (India) Pvt. Ltd. or downloaded from the home page of the website - http://haryanaphed.etenders.in.>> "Information for new users".

5. Online Viewing of Notice Inviting Tenders:

The contractors can view the N.I.T and the time schedule (Key Dates) for all the packages floated using the electronic tendering system on the Haryana PHED website http://haryanaphed.etenders.in. Contractor may refer to NIT in the office of Executive Engineer.

6. Opening of an Electronic Payment Account:

- 6.1 For purchasing the tender documents online, contractors are required to pay the tender documents fees online using the electronic payments gateway service as mentioned at S.No.8.
- **6.2** For the list of payments using which the online payments can be made, please refer to the Home page of the Portal http://haryanaphed.etenders.in

7. Submission of Earnest Money Deposit:

- 7.1 Contractors have to deposit EMD into the account of the concerned Executive Engineer through RTGS/NEFT. Earnest Money in parts either through different banks or on different dates will not be accepted. EMD should be deposited through RTGS / NEFT as consolidated amount in single transaction so that there is no difficulty in accounting and also that there is no ambiguity for relating a transaction to a particular tender.
- **7.2** Refund of Earnest Money Deposit to the unsuccessful bidders will be made through cheque issued in the name of contractor / agency.
- 7.3 Payment of EMD may be made up to specified time of "Online bid preparation, Hash submission & Earnest Money Deposit" as per key dates schedule of tender. Scanned copy of the proof i.e. receipt of transaction of EMD should be uploaded while submitting the tender. A photocopy of document of transaction made should also be

physically submitted in envelop ED.

7.4 If any agency withdraws its bid after "submission of bids – Final Stage (re-encryption of bid), then the Earnest Money Deposit of such agency shall be forfeited.

8. Submission of Tender Document Fees:

The Payment can be made by eligible contractors online directly via Credit Card / Internet Banking Account / Cash Card / Debit card. The contractors have to pay for the tender documents online by making online payment of tender document fees using the service of the secure electronic payment gateway. The secure electronic payments gateway is an online interface between contractors and credit card / online payment authorization networks.

If the tenders are cancelled or recalled on any grounds, the tender document fees will not be refunded to the agency.

9. Purchase of Tender Documents:

Download of Tender Documents: The tender documents can only be downloaded from the Electronic Tendering System on the Portal http://haryanaphed.etenders.in

10. Submission of Bid Seal (Ist Stage) i.e. Bid Seal/Hash Submission:

Submission of bids will be preceded by submission of the digitally signed bid seal (Hash) as stated in the tender time schedule (Key Dates) of the Tender. Bidders should take note of any corrigendum being issued on the web portal on a regular basis. They should view and note down the tender Hash and ensure that it matches with their previous noted Hash before confirming the rates.

11. Generation of Super Hash:

After the time of submission of Bid Seal (Hash) by the bidders has lapsed, the bid round will be closed and a digitally signed tender Super Hash will be generated by authorized Haryana PHED official. This is equivalent to sealing the tender box.

12. Submission (Re-encryption) of actual online bids:

Bidders have to submit their encrypted bids online and upload the relevant documents for which they generated the hash at the stage of hash generation and submission after the generation of Super Hash within the date and time as stated in the Notice Inviting Tenders (Key Dates). The electronic bids of only those contactors who have

submitted their bid seals (Hashes) within the stipulated time, as per the tender time schedule (Key Dates), will be accepted by the System. A bidder who does not submit his bid seal (Hash) within the stipulated time will not be allowed to submit his bid after the permitted time as per key dates.

13. Key Dates:

- 13.1 The bidders are strictly advised to follow dates and time as indicated in the Notice Inviting Tender. The date and time will be binding on all the bidders. The bidders are required to complete the stage within the stipulated time as per the schedule to continue their participation in the tender. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and time of the stage as defined in the Notice Inviting Tender. The bidder should check the status of a particular stage by following the below mentioned procedure:
 - a. Click on "Main" after login into the portal.
 - b. Select "Tender Search" and click on "Go"
 - c. Next screen will appear on the screen and click on "Search" button to view the list of various tenders.
 - d. Select the tender whose status is to be viewed by clicking on the tender no.
 - e. Click on "Action page" button. The status of all the stages i.e. whether "Pending" or "Completed" can be viewed.

The bidder should ensure that the status of a particular stage should be shown as "Completed" before the expiry date and time of that particular stage and he should possess a copy of receipt of completion of each stage to be performed from his end. It will be the sole responsibility of the bidder if the status of a particular stage is "Pending" till the expiry date and time of that stage and he is not able to proceed further in the e-tendering process.

Other Information:

1. The intending bidders shall fill the lumpsum rate / item rate / Percentage rate in the online templates of the online tender. The Price Bid has to be submitted mandatory online. In case the bidder does not submit the rates of Non-schedule items, intentionally or unintentionally, then the rates of such items will be

- considered as Free of Cost. If the bidder does not agree to execute such N.S. Items for which he has not quoted rates, free of cost, then his EMD will be forfeited.
- 2. The photocopy of the receipt of transaction made for payment of Earnest Money Deposit should be put **ED**' sealed envelopes and these sealed envelope and delivered to this office before the date and time mentioned in the Tender Notice alongwith documents listed below:
 - i. A list of all documents accompanying the sealed envelope containing the tender documents.
 - ii. Duly accepted power of Attorney in original along with its two certified copies in the name of bidder or authorized representative to act on behalf of the agency.
- 3. Tenderer must strictly abide by the stipulations set forth in notice inviting tender & while tendering for the work, the bidder shall adopt only the two envelope system.
- 4. The 'CI' envelope Price Bid envelope has to be submitted mandatory online and shall not be accepted physically under any circumstances. In case any bidder does not comply with procedure given above, it will be presumed that he is not interested in the work and the work shall not be let out to him. Further he may be de-listed without further notice to him for failing to abide by the strictly approved terms of notice inviting tender for this work.
- 5. The tenders which are not accompanied by the earnest money or proof of earnest money or do not strictly follow the technical requirement, are liable to be rejected summarily.
- 6. Tenders / quotations which are dependent upon the quotations of another bidder shall be summarily rejected.

Note: - Bidders participating in e-tendering shall check his/her validity of Digital Signature Certificate before bidding in the specific work floated online at e-tendering portal of Public Health Engineering Department, Haryana on the website http://haryanaphed.etenders.in. Also, the bidder will be held liable solely, in case, while bidding in particular stage - Date & Time expired as per the key dates available on the tender document. Key dates are subject to change in case of any amendment in schedule due to any reason stated by concerned Executive Engineer of the Department.

HARYANA PUBLIC HEALTH ENGINEERING DEPARTMENT. PUBLIC HEALTH ENGINEERING DIVISION, NO.1 HISAR.

NOTICE

NOTICE INVITING TENDER

1. For and on behalf on the Governor of Haryana, tenders in sealed covers are hereby invited for the execution of the work given below from firms of repute/ such contractors, who are having a valid certificate of enlistment issued by a competent officer of Haryana Public Health Engineering Deptt. Duly renewed upto date (on which tenders are to be opened):-

Name of Work:

Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto".

App. cost Rs.81.20 lacs

PARTICULARS OF THE OFFICER INVITING THE TENDERS

EXECUTIVE ENGINEER
Haryana Public Health Engineering Department
Public Health Engineering Divn. No.1 Hisar

Hereinafter referred to as "Executive Engineer"

SEALED COVER

The tenders shall be preferably in a cover which may be sealed by the contractor, if he chooses to do so. The contractor shall be responsible for all consequences, if his tender is not sealed.

3. Further information can be obtained and a schedule of quantities, the detailed plans and specifications can be seen in the office of the "Executive Engineer" during 10.30 Hrs. to 13.30 Hrs. on any of the working days.

For showing these documents to the contractors, the "Executive Engineer" will nominate a responsible official who may be contacted. The particular of the said official shall be displayed on the Notice Board of the office and/or at a prominent place in the office of the "Executive Engineer".

4. The tender shall be accompanied by Earnest Money amounting to Rs.95000/-. The earnest money shall be in the shape of "Deposit at Call" or the fixed deposit in favour of the "Executive Engineer" drawn on any Scheduled Bank. The earnest money shall not be accepted in any other form. Any tender not accompanied by earnest money in the said form) shall stand invalidated and shall be rejected outright and the rates shall not be announced.

Contractor Witness Executive Engineer

While every effort shall be made to release the earnest money, as early as possible. It is however clarified that the earnest money may not be refunded earlier than 3 calendar months after the opening of tenders/price bid or before the allotment of tender, whichever is earlier.

5. Tenders will be received by the Executive Engineer, Public Health Engineering Division No.1 Hisar (hereinafter referred to as "Executive Engineer") as follows:-

(i) Place where tenders are : Office of the Executive Engineer,

to be received Public Health Engineering Division

No.1 Hisar

(ii) Time : Any time during the office working

(iii) Mode of delivery of tenders : May be sent by post to the said

"Executive Engineer" so as to reach him not later than the time mentioned at (ii) above or may be put in the "Tender Box" in office

room of the Executive Engineer.

- 7. (i) The tender shall be required to be kept open for acceptance for a period of at least 3 calendar months from the prescribed date of opening of the tenders/price bid. Any tender not complying with the above conditions shall be rejected outright and the earnest money forfeited. Further the quoted rates of such ender shall not be announced at the time of opening.
- (ii) The tenders shall not be modified or withdrawn at any time after submission, unit 3 calendar months have elapsed after the date of opening.

Tenders shall not be burdened with any conditions.

Any infringement of above is likely to result in loss of earnest money.

- 8. The approval to acceptance of the tender will rest with the Governor of Haryana or any other duly authorized Officer, acting for and on his behalf, who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received without assigning any reason whatsoever.
- 9. The contractor, whose tender is accepted will be required to execute a contract/ deed on the conditions contained in the prescribed form mentioned in paragraph (2) above and ill be required to furnish security for the due fulfillment of his contract. The security deposit shall be Rs.5% of the estimated cost of work minus the earnest money already deposited. The demand notice for deposit of full amount of security may be made any time after the letter of acceptance has been issued. Usually a time period of 10 days shall be allowed for the same. In case of non-deposit of this security, the same shall be deducted from first running bill of the work.

Divisional Accounts Officer Public Health Engineering Divn. No.1, Hisar Executive Engineer Public Health Engineering Divn. No.1, Hisar For & on behalf of Governor of Haryana

STEREO B & R 28

Name of contractor	:	

Name of Work: - Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar.

"Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto".

App. cost Rs.81.20 lacs

HARYANA PUBLIC HEALTH ENGINEERING DEPARTMENT PUBLIC HEALTH ENGINEERING DIVISION, NO.1 HISAR

FORM: F-1

Signature

TENDER AND CONTRACT FOR WORKS

Dy. Supdt.

General Rules and Directions for the Guidance of Contractors

CONTRACTORS SHOULD CAREFULLY STUDY THE RULES GIVEN BELOW WHICH ARE FOR THEIR GUIDANCE BEFORE SUBMITTING THE TENDERS & COMPLY WITH THE SAME ANY NON COMPLIANCE OF THE SAME IS LIKELY TO RESULT IN FORFEITURE OF EARNEST MONEY & MAY RESULT IN CANCELLATION OF HIS CERTIFICATE OF ENLISTMENT.

Rule No.1: Brief information about the works proposed for a execution by contract have been notified in a shape of "NOTICE" pasted on the Notice Board hung up in the office, duly signed by the Executive Engineer. Further, the detailed document called "NOTICE INVITING TENDERS" can be seen in the office of Executive Engineer on any working day. This form states the work to be carried out, as well as the date & time for submitting and opening of tenders and the time allowed for carrying out, the work, the earnest money required to accompany the tenders, also the amount of security to be deposited by the contractor whose tender is accepted, the conditions of contract on which contract agreement would be concluded, copies of the specifications, designs & drawings, Contract Schedule of Rates and also a Schedule of Ceiling Premia" by which the rates of various items of the Contract Schedule of Rates shall be increased so as to be called the "Ceiling Rates". Further any other documents required in connection with the works duly signed by the Executive Engineer for purpose of identification shall also be open for inspection by the contractors in the office of the Executive Engineer as mentioned in the "NOTICE"

General

Rule No.2: Any contractor who submits tender may sign an affidavit to the
effect that he has no connection or relation with the firm/ contractor black-listed by
Haryana Government/ Govt. of India from time to time. The form of affidavit can be
seen in the office of the "Executive Engineer".

Rule No.3: The tender shall not be burdened or loaded with any conditions. Only rate shall be quoted. A conditional tender is liable to be rejected outright at the discretion of the accepting authority. In the alternative, the accepting authority may treat the conditions as null and void and make a counter offer to the tenderer to do the work at the rate quoted by him without the conditions. If the contractor who submitted the tender refuses to accept the said counter offer to do the work at the rates quoted by him without the conditions within one week of the said offer having been made by the accepting authority, the earnest money which accompanied the tender shall stand forfeited and the contractor shall have no claim to the same whatsoever.

Conditional Tenders

Rule No.4: The tender shall be signed by the person or persons authorized to do so in a manner by the authority granting the certificate of enlistment. Any tender not signed in the manner so authorized shall be deemed to be an invalid tender and shall be rejected and the earnest money shall be forfeited without prejudice to any other rights & remedies available to the Executive Engineer.

Contractor's Signature

In the event of tender being submitted by a firm, it must be signed separately by each member thereof, or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorising to do so.

For the purpose of identification, the contractor shall supply to the Executive Engineer specimen signatures duly attested by a Gazetted Officer known to the Executive Engineer. The specimen signature must be supplied well before the date of submission of tenders.

The contractor(s) shall sign, on all pages of tender form to be submitted by him. In addition, he shall also sign at the places, where he is to sign which are marked 'X' on pages.

All corrections shall be made in a manner so that the original is legible. There shall be no over writings. The corrections shall be authenticated by the signatures of the authorized person as described above.

Any tender not so signed may be rejected and the earnest money forfeited.

Single Rate

Rule No. 5: (a) For Schedule Items- Any person who submits a tender shall fill up the usual printed form stating the percentage above or below the "Ceiling Rates" as defined in Rule 1 at which he is willing to undertake the work. Only one single rate of percentage above or below an all scheduled items of the contract Schedule & for all purposes shall be mentioned in the space provided in the Tender Form. For the purpose of this single rate. Explanatory Memo, below may be seen, which explains the manner in which the admissible payment shall be worked out after taking into consideration the sanctioned Ceiling Premia as enumerated in the "Schedule of Ceiling Premia" mentioned in Rule (1) together with the single rate quoted by the contractor. Any rate entered outside this space may render the tender invalid. If a contractor quotes more than one rate in that case only lower or lowest of the rates so quoted shall be considered and a counter offer shall be made to him accordingly at the lowest of the rates quoted by him and in the event of his not accepting the same, the earnest money that accompanied the tender shall stand forfeited and the contractor shall have no claim to the same whatsoever.

		10
		(b) For Non Schedule Items- A person submitting a tender shall fill up
		the rates against each item shown on page 6. No premium over the rates quoted
		by him will be admissible over these NS items.
From	specific	A single tender form shall be used, for one specific work only viz. the work for
work		which the same has been issued by the specific contractor to whom the same has
		been issued by the Executive Engineer. The tender form preferably be put in the
		cover and the cover may be sealed by the contractor. If the cover is not sealed by
		the contractor, Executive Engineer shall not be responsible for any consequences
		thereof.

EXPLANATORY MEMO (REFER TO RULE 4 OF GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS)

For the purpose, the basis rate for a particular item specified in the Contract Schedule of Rates shall be increased by the sanctioned Ceiling Premium as per the "Schedule of Ceiling Premia" which is attached and is a part of this form. The total amount shall then be subjected to the discount or Premium quoted by the contractor.

For example, the basis rate for an item is Rs. 120 per cum, sanctioned ceiling premium is 50%, 300 cum of the items are executed and premium/rebate rate quoted by the contractor is 3% below. The net payment shall be worked out as below:-

Quantity	Item	Unit	Rate	Amount Rs.
300 cum		cum	Rs. 120.00	Rs.36000
	Add Ceiling Premium	50%		Rs.18000
	GOSS TOTAL			Rs.54000
	Less contractor rebate 3% (-)			Rs.1620
	NET PAYABLE			Rs.52380
If the rate of	quoted by the contractor was 5% above, the	amount pay	able would be a	as under:-
	GROSS TOTAL			Rs.54000
	Add. Contractors Premium 5%			Rs.2700
				Rs.56700

- 6. (a) The Executive Engineer or any other officer duly authorized by him will open tenders. Any contractor(s) (who may have submitted tenders) or their authorized agents may be allowed to be present at the time of opening of tenders.
 - (b) The officer opening the tender will first make, a list of those tenders which are on the prescribed form. All other documents purporting to be tenders shall be separated and sealed separately without even announcing the identity of the tenders.

Out of the list of tenders received on prescribed form the officer opening the tenders will then separate out those which are not accompanied by requisite amount of earnest money or in the required form. Infirmities shall be notified and such tenders shall be resealed without announcing the rates.

(c) He will then announce the rates quoted by all other contractors whose tenders do not suffer from any infirmities. In cases where the tenders have any or many shortcomings, the rates may not be announced and such tenders may be put in a cover and sealed. This fact shall

be announced. The tender so sealed shall be dealt with according to rules and regulations on the subject/situation.

(d) The Executive Engineer shall have the right of rejecting all or any of the tenders without assigning any reason.

In the event of a tender being accepted, an acknowledgement of the Deposit at call receipt, forwarded there with shall thereupon be given to the contractor who shall thereupon for the purpose of identification, sign copies of specifications and other documents mentioned in Rule 1. In the event of a tender not being accepted, the earnest money forwarded with such tender unless the same has been forfeited will thereupon be returned to the concerned tenderer.

- 7. The receipt of an Accountant or Clerk for any money paid by the contractor will not be considered as acknowledgement of payment to the Executive Engineer and the contractor shall be responsible for seeing that he procures a receipt signed by the Executive Engineer.
- 8. The memorandum or work tender for and memorandum of materials to be supplied by the Public Health Engineering Deptt. and their issue rates shall be filled in and completed in the office of the Executive Engineer before the tender form is issued. If a form is issued to a contractor who intends to tender without having been so filled in and completed, he shall request the office to have the done before he completes and delivers his tender.
- 9. The department may refuse or suspend payments on account of a work when executed by a firm or by contractors described in the their tender as a firm, unless receipts are signed by all the partners, or one of the partners or some other person produces written authority enabling him to give effectual receipts on behalf of the firm.

TENDER FOR WORKS

In figure as well as in words

I/we hereby tender for the execution, for Public Health Engineering Divn. Of the work specified in the memorandum on Page 7 within the time specified in such memorandum.

(A)	Schedule Items.	
at*		
	(in figures)	(in words)

Contractor Witness Executive Engineer

Schedule No.1 Price Bid

(a) Rate for items based on Haryana Schedule of Rates 1988

at*

In figures In words

*Percent above/ below the ceiling rates worked out as per contract Schedule of Rates and the Schedule of Ceiling Premium read with rule 1 of the standard tender form (Part of documents) and in accordance, in all respects, with the specification drawings and instructions in writing referred to in the said rule 1 and with such material as are provided for by the Engineer-in-Charge, in all respects and in accordance with such conditions, so far as applicable.

Sr. No.	Name of item with brief description	Qt	y.	Unit	Rate to be quoted by the contt.
	Non Schedule Item			1	I
1	Supply & Erection of Horizontal spindle split casing type pumping sets of following duties directly coupled to AC squirrel cage induction type motor with accessories as described in Schedule No. II complete in all respect with priming arrangement with complete base frame.				
	A) Clear water pump set				
	2100 LPM, 45 mtrs head with squirrel cage induction motor 1440 RPM, 3 phase 50 Hz of four star rating	1	Nos.	Each	
	B) Raw water pump set				
	2100 LPM 12 mtrs head with squirrel cage induction motor 1440 RPM, 3 phase 50 Hz of four star rating	2	Nos.	Each	
2	A) Detail of pipe and specials				
	A) CI D/F bends, Reducers, tees etc. for H/W, P/M	760	Kg.	Per Kg.	
2(a)	Supply and fixing following CI D/F and specials bell mouth/ Reflex valves including cost of Jointing materials, excavation, laying jointing, fefilling including making adequate supports of masonry/ concrete/ steel for delivery and suction pipe from bell mouth in the collecting tank upto the rising main laid by the department as per plan shown from the foundation wall of the pump chamber for all the raw water and clear water pumping sets at water works, as per specification given in schedule No. II (for machinery & inlet channel outlet connection of structures.	20	mtr	Per mtr	
	a) 200 mm i/d C.I. D/F Pipe	20	mtr	Per mtr	

	b) 150 mm i/d C.I. D/F Pipe	45	mtr	Per mtr	
	c) 100 mm i/d C.I. D/F Pipe	6	mtr	Per mtr	
3	Supply, erection, testing and commissioning Wall mounted electrical panel board, fabricated from 16 SWG CRCA sheet duly stouted with suitable angle iron frame work and completely powder coated of approximate size 1200x900 mm and 400 mm deep having	1	Nos.	Job	
	following items. a) MCCB main suitable for complete water				
	works/Boosting station installatioin (L&T Siemens, ABB)				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T)				
	c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T)				
	d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T) e) VSS & ASS 1 No. each of				
	approved make f) SPP for each set of				
	approved make g) Motor starter, star delta for suitable for pump set 1No.2100 LPM x 45 Mtr Head Motor (L&T Siemens, ABB)				
	h) Capacity KVAR as per requirement i) Indicating Lamp - One Set				
	j) MCCB suitable capacity for				
	k) wiring of suitable size inside the Panel Board				
	Suitable Capacity Change Over switch for raw water & clear water				
4	Supply, erection, testing and commissioning Wall mounted electrical panel board, fabricated from 16 SWG CRCA sheet duly stouted with suitable angle iron frame work and completely powder coated of approximate size 1200x900 mm and 400 mm deep having following items.	1	Nos.	Job	
	a) MCCB main suitable for complete water works/Boosting station installatioin (L&T Siemens, ABB)				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T)				
	c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T)				
	d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T)				

1	a) VSS 9. ASS 1 No. cash of			l	
	e) VSS & ASS 1 No. each of approved make				
	f) SPP for each set of approved make				
	g) Motor starter, star delta for				
	suitable for pump set 2 Nos.				
	2100 LPM x 12 Mtr. Head Motor (L&T Siemens, ABB)				
	h) Capacity KVAR as per requirement				
	i) Indicating Lamp - One Set				
	j) MCCB suitable capacity for each set				
	k) wiring of suitable size inside the Panel Board				
	Suitable Capacity Change Suitable for row water 8				
	Over switch for raw water & clear water				
5	Supply erection, testing of ISI	60	Mtr.	Per mtr.	
	marked copper wire for 3 Nos motors with under ground				
	system in PVC and flexible				
	pipes copper wire size 25mm Sq three core complete in all				
	respects with accessories like				
	thimble etc. (Transformer to Panel & Motor)				
6	Supply erection, testing of ISI				
	marked copper wire for 1 No				
	panel boards from main switch to panel and wiring of				
	panel complete in all respects				
	with accessories like thimble etc.				
(i)	Raw water 4mm	50	Mtr.	Per mtr.	
(ii)	Clear water 16mm	50	Mtr.	Per mtr.	
7	Providing laying jointing and	1	Nos.	Each	
	fixing of cast iron "V" notch duly marked with beam				
	including embedding.				
8	Providing & fixing suitable floating arms along with	1	No.	Each	
	floating arms along with swivel bend as per required				
	specifications approved by				
9	Engineer-incharge (200 mm) Stringing out D.I.pipe sand				
	specials castings along				
	trenches and laying the same				
	in trenches to correct, alignment and gradients				
	including cartage from				
	divisional stroes or nearest				
	railway station to site of works or nearest railway station to				
	site of works and return of				
	pieces of pipes to stores.(for Head work & Distribution				
	System)				
	b) 200mm i/d (110+200)	320	Mtr.	mtr	
	a) 100 mm i/d (30+144)	174	Mtr.	mtr	
10	Cutting D.I. pipes and specials				
	and chipping or filing the surface to a uniform finish.				
	caacc to a annount minori		l	<u> </u>	1

	200 mm i/d	12	Nos.	Each			
	100 mm i/d	8	Nos.	Each			
11	Jointing D.I. socketted pipes, valves and specials with run lead caulked joints excluding cost of lead and yarn but including cost of labour fuel and tools etc. tested complete.						
	b) 200 mm i/d	60	Nos	Each			
	a) 100 mm i/d	40	Nos	Each			
Cred	Credit of Bricks & Brick bats for Inlet Channel						
12	Bricks 160x60% = 96 cum x 480 = 46080 (-)	46080	No.	Each			
13	Brick bats $160x40\% = 64$ cum (-)	64	cum	cum			

*Enter the rates both in words and in figures only in this space. In the event of variation of rate in words and figures, tender may be rejected or otherwise the lower value only shall be considered. Also in case of N.S. items, if rate of any item is not quoted by the contractor, the same shall be considered as free of cost.

The Contractor/ Agency shall fill up the component wise rate in figures and words for non-schedule items in the space given on page...... under the heading in (B) non schedule item. The tender of the Contractor/Agency who does not fill up the component wise rates, shall be outrightly rejected as an irresponsive tender and earnest money of the concerned contractor/agency shall be forefitted for not observing the required procedure.

MEMORANDUM

a) General Description Aug	a) . (b) If Several				
b) Estimated Cost Rs.81.20	Sub- Works are included they				
c) Earnest Money Rs.16240	should be detailed				
	in a separate list.				
d) Security deposit (including earnest money) Rs.5%/-					
e) Percentage, if any, to be	deducted from b	ills 5%	will very from 1% to 2% of the		
f) Time allowed for the work from date of written order to commence 12 months.					
i) Time uno weu for the wor	estimated cost of the work according				
	to the requirement				
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	of the case		
	=	reby agree to abide by and fulfill all terms and	(d). This will be 5% of the estimated		
÷		act annexed hereto so far as applicable, or in	cost of the work.		
default thereof forfeit to and	l pay to the Har	yana, Public Health Engineering Department or	(e) This Percentage		
its successor in office the su	ms of money me	ntioned in the said conditions.	will be 5% of the		
The sum of Rs.		"Deposited vide Deposit at call in the name of	total amount of running bills. See		
		as earnest money, the full value of	note to clause I of		
		ryana Public Health Engineering Department or	conditions of		
		ny other rights or remedies of the said Haryana,	contract.		
		its successor in office. Should I/We fail to	*Give particular and number.		
	-		Strike out (a).if no		
-		memorandum the said sum of Rs	cash security		
<u> </u>	=	alth Engineering Department on account of the	deposit to be taken.		
security deposit specified	in clause I of	the said conditions of contract. Should 1/we	*Strike out (b) if		
withdraw or modify the ten	der within three	e calendar months from the date of opening of	any cash security		
tender, my/our earnest mor	deposited is taken.				
Department and in both the	cases any expen	ses which may be incurred in excess of the sum	*0:		
which would have been paid	to the original	contractor if the whole work had been executed	*Signature of contractor before		
-	_	ficate in writing the Executive Engineer shall be	submission of		
=		by the original contractor and may be deducted	tender		
	G: C :				
= = =	=	nt under the contract or otherwise or from the	Signature of witness contractor's		
proceeds of sale of his prope	-	-	signature		
	reby accepted l	by me for and on behalf of the Governor of			
Haryana.			Signature of officer		
Dated the	Day of	20	by whom accepted.		

CONDITIONS OF CONTRACT

Security deposit This will be the same percentage as that in the tender at (C).

Compensation of delay

Clause 1: The person/persons whose tender may be accepted (hereinafter called the contractor), shall permit the Executive Engineer 1st Public Health Engineering Department, Haryana Division Hisar, hereinafter called the Engineer in charge at the time of making any payment to him for work done under the contract to deduct such sum as 5% of all money so payable in addition to 5% of the estimated cost of work already deposited as security before commencement of the work including earnest money. Such deductions to be held by Government by way of security deposits.

Clause 2: The time allowed for carrying out of work as entered in the tender shall be strictly observed by the contractor, and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence (time being deemed to be the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent which the Executive Engineer may levy on the amount of the estimated cost of the whole work as shown by the tender for every day that the work remains uncommenced or unfinished, after proper dates. And further, to ensure good progress during the execution of work the contractor shall be bound, in all uses in which the time allowed for any work exceeds one month to complete one-fourth of the whole of the work before one-fourth of the whole time allowed under the Contract has elapsed, one half of the work before onehalf of such time has elapsed and three fourth of the work before three-fourth of such time has elapsed. In the event of the contractor failing to comply with this condition he shall be liable to pay as compensation an amount equal to one percent which the Executive Engineer, may levy on the said estimated cost of the whole work for every day that due quantity of work remains incomplete provided always that the amount of compensation to be paid under the provisions of this clause shall not exceed ten percent of the estimated cost of the work as shown in the tender. 'The Superintending Engineer on representation in writing from the contractor may reduce the amount of compensation and his decision in writing shall be final.

Action when whole security deposit is forfeited.

Clause 3: In any case in which under any clause or clauses of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) the Executive Engineer on behalf of the Government shall have power to adopt any of the following courses, as he may deem best suited to the interests of Government:-

(a) To rescind the contract (of which rescission notice in written to the contractor under the hand of the Executive Engineer shall be conclusive evidence) and in which case the security of the contractor shall stand forfeited, and be absolutely at the disposal of Government and any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of amount of which excess the certificate in writing the Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under the contract or otherwise or from the proceeds of sale of his property or a sufficient part thereof.

- (b) To employ labour paid by the Public Works Deptt. and to supply materials to carry out the work, or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price a certificate of the Executive Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract; the certificate of the Executive Engineer as to the value of the work done shall be final.
- C) To measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of amount of which excess the certificate in writing the Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under the contract or otherwise or from the proceeds of sale of his property or a sufficient part thereof.

In the event of any of the above courses being adopted by Executive Engineer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagement or made any advances on account of or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work therefore actually performed under this contract, unless and until the Executive Engineer will have 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 4: In any case in which any of the powers conferred upon the Executive Engineer by clause-3 hereof, shall 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 not withstanding be exercisable in the event of any future case of default by the contractor for which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor of past and future case of compensation shall remain unaffected. In the event of the Executive Engineer putting in force either of the powers (a) or (c) vested in him under the preceding clause he may, if he so desires take possession of all or any tools, plant material and stores in or upon the works or the site there of or belonging to the contractor, or procured by him and intended to be used for the execution of the work on any part thereof paying or allowing for the same in account at the contract rates, or in case of these not being applicable at current market rates to be certified by the Executive Engineer whose certificate hereof shall be final otherwise the Executive Engineer may by notice in

writing to the contractor or his clerk of the works, foreman or other authorized agent require him to remove such tools plant materials, or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Executive Engineer may remove them at the contractor's expenses or sell them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Executive Engineer as to the expense of any such removal, and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause 5: If the contractor shall desire an extension of the time for completion of the work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the Superintending Engineer Public Health Engineering Circle, Hisar through-the Executive Engineer Public Health Engineering Division No.1 Hisar, within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid but before the expiry of contract period and the Executive Engineer/Superintending Engineer shall, if in his opinion (which shall be final) reasonable grounds have been shown, thereof authorise, such extension of time, if any, as may in his opinion be necessary or proper.

Clause 5-A: The contractor shall deliver in the office of the Executive Engineer, on or before the 10th day of every month during the continuance of the work covered by this contract, a return showing details of any work claimed for as extra, and such return shall also contain the value of such work as claimed by contractor value of which shall be based upon the rates and prices mentioned in the contract or in. the schedule of rates in force at that time. The contractor shall include in such monthly return particulars of all claims of whatever kind and however arising, which at the date thereof he has or may claim to have against the Executive Engineer under or in respect, of in any manner arising out of the execution of work and the contractor shall be deemed to have waived all claims not included in such return and will have no right to enforce an

Contractor submit returns every month for any work claimed as extra. District rates means Haryana PWD Building & Roads Branch rates for that District

such claims not so included, whatsoever be the circumstances.

Final Certificate

Clause 6: Without prejudice to the rights of Government under any clause hereinafter contained on completion of the work, the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineer-incharge) of such completion; but no such certificate shall be given, not 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 and rubbish, and cleaned off the dirt from all wood works, doors, windows, walls, floors or other parts of any building, in upon or about which the work is to be executed, of which he may have had possession for the purpose of the execution thereof and the measurements in the said certificate shall be binding and conclusive against the contractor, if the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish, and cleaning off dirt on or before the date fixed for the completion of the work, the Engineer-in-charge may at the expense of the contractor, remove such scaffolding or surplus materials and rubbish and dispose off the same as he thinks fit and clean off such dirt aforesaid; and the contractor shall forthwith pay the amount of all expenses so incurred and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof less any expense incurred by the Engineer-in-charge in connection therewith.

Payment on intermediate certificate to be regarded as advance

Clause 7: No payment shall be made for work estimated to cost less than rupees one thousand till after the whole of the works shall have been completed and a certificate of completion given. But in case of works estimate to cost more than rupees one thousand, the contractor shall be submitting the bill thereof, be entitled to receive a monthly payment proportionate to the part thereof then approved and passed by the Engineer-in-charge whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. But all such intermediate payments shall be regarded as payments by ways of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsounded and inperfect or unskillful work to be removed and taken away and reconstructed or re-erected, or be considered as an admission of the due performance of the contract or any part thereof in any respect or the accruing of any claim, nor shall it conclude, determine or affecting any way the powers of the Engineer-in-charge, under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work otherwise the Engineer-in-charge's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on all parties

Clause 7 (a): The deductions referred to in clause 1 hereinbefore or such part thereof as may be due to the contractor under this contract shall be payable to the contractor after a period of three months has lapsed after payment of final bill,.

Security to be released 3 months after the payment of final bill Bills to be submitted in monthly

Clause 8: A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous month and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified, and the claim, as far as admissible, adjusted if possible, before the expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor whose counter signature to the measurement list will be sufficient warrant and Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

Bills to be on printed format

Clause 9: The contractor shall submit all bills in triplicate on the printed forms to be had from the office of the Engineer-in-charge, and the charges in the bills shall always be entered at the rates specified in tender on in the case of any extra work ordered in persuance of these conditions, and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

Stores supplied by Government

Clause 10: If the specification of estimate of the work provides for the use of any special description of materials to be supplied from the Engineer-in-charge's store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such materials and stores and the price to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor, but not so as in any way to control the meaning of effect of this contract, specified in the schedule or memorandum, here to annexed), the contractor shall be supplied with such materials and stores as required from time to time to be used by him for the purposes of the contract only and the value of the full quantity of materials and stores so supplied at the rates specified in the said schedule or memorandum may be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract or otherwise, against or from the security deposit, or the proceeds of sale thereof, if the same is held in Government securities, the same or a sufficient portion thereof being in this case sold for the purpose. All materials supplied to the contractor shall remain the property of the contractor, but shall not on any account be removed from the site of the work without the written permission of the Engineer-in-charge and shall at all times be open to inspection by him. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the Engineer-in-charge's store and shall have no claims for compensation on account of any such materials so supplied to him as aforesaid being unused by him or for any wastage in or damage to any such materials.

Clause 11: The contractor shall execute the whole and every part of the work in the most substantial and workman like manner, and both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully to the designs, contract drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office, and to which the contractor shall be entitled to have access at such office, or at the site of the work for the purpose of inspection during office hours, and the contractor shall, if he so requires, be entitled at his own expense to make or cause to be made copies of the specifications, and of all such designs, drawings and instructions as aforesaid.

Works to be executed in accordance with specification drawings orders

Clause 11(a): The Engineer-in-charge shall have full powers at all times to object to the employment of any workman, foreman or other employees on the works by the contractor, and if the contractor shall receive notice in writing from the Engineer-in-charge requesting the removal of any such man or men from the work, the contractor shall comply with the request forthwith.

Removal of Employees workman

No such workman, foreman or other employee after his removal from the works by request of the Engineer-in-charge shall be re-employed or re-instated on the work by the contractor at any time except with the prior approval in writing of the Engineer-in-charge.

The contractor shall not be entitled to demand the reason from the Engineerin-charge for requiring the removal of any such workman, or foreman or other employees.

Clause 12: The Engineer-in-charge shall have power to make any alterations in or omissions from or 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 the contractor shall be bound to carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-charge and such alterations, omissions, additions or substitutions shall not invalidate the contract; and any altered, additional or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rates as are specified in the tender for the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Engineer-in-charge shall be conclusive as to such proportion. And if the altered, additional or substituted work includes any class of work, for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the Haryana schedule of rates subject to the same percentage above or below, as for the items included in the contract, and if such class of work is not entered in the Haryana schedule of rates, the contractor shall within seven days of the date of his receipt of the order to carry out of work, inform the Engineer-incharge of the rate he intends to charge for such a class of work, and if the Engineerin-charge does not agree to this rate he shall by notice in writing, be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable, provided always that if the contractor shall commence work or incur any expenditure in regard thereto before the rates shall have been determined as lastly hereinbefore mentioned then and in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to such rates as shall be communicated by the Engineer-in-charge, after getting the same decided by the competent authority.

Clause 13: If at any time after the commencement of the work, if the Government shall for any reason, whatsoever not requires the whole work thereof as specified in the tender to be carried out, the Engineer-in-charge shall give notice in writing of the fact to the contractor who shall have no claim to have any payment or compensation, whatsoever on account of any profit or advantage, which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim compensation by reason of any alterations having been made in the original specification, drawings, designs and instructions which shall involve any curtailment of the works as originally contemplated.

Alteration in Specifications and designs

Do not invalidate contract

Extension of time of consequence of Alteration.

Rates of work not in estimates or schedule of rates of the Distt.

No compensation for alteration in or restriction of work to be carried out.

Action & compensation payable in case of bad work.

Clause 14: If it shall appear to the Engineer-in-charge or his subordinate in charge of the work, that any work has been executed with unsounded, imperfect or unskillful workmanship or with materials of any inferior description or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the Engineer-in-charge specifying the work materials or articles complained of notwithstanding that the same may have been inadvertently 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 and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimated cost of the work covered by this contract for everyday not exceeding ten days, while his failure to do so shall continue and in the case of any such failure, the Engineer-in-charge may certify or remove and re-execute the work or remove and replace with other materials or articles complained of, as the case may be at the risk and expense in all respects of the contractor.

Clause 15: All work under or in course of execution or executed in persuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his subordinates and the contractors shall at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the works shall have 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.

Work to be open to Inspection Contractor or responsible agent to be present.

Clause 16: The contractor shall give not less than five days notice in writing to the Engineer in Charge or his subordinate-in charge of the work before covering up or otherwise placing beyond the reach of the measurement any work that the same may be measured and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work, without the consent in writing of the Engineer in Charge or his subordinate-in charge of the work. If any work shall be covered up or placed beyond the reach of the measurement without such notice having been given or consent obtained the same shall be uncovered at the contractor's expense, or in default thereof, no payment shall be made for such work materials with which-the same was executed.

Notice to be given before work is covered up.

Clause 17: If the contractor and his work people or his servant shall break, deface injury or destroy any part of building, in which they may be working or any building, road fence, enclosure or grass and or cultivated ground contiguous to premises on which the work or any part of it is being executed or if any damage shall happen to work, while in progress from any cause whatever or any imperfections become apparent in it within three months after a certificate final or other of its completion shall have been given by the Engineer-In-charge as aforesaid, the contractor shall make the same good at his own expense or in default, the Engineer-In-Charge may cause the same to be made good by other workmen, and deduct the expense of which the certificate of the Engineer-in-charge shall be final, from any sums that may be then or any time thereafter may become due to the contractor or from his security deposit or the proceeds or sale thereof or of a sufficient portion thereof.

Contractor liable for damage done & for imperfections for 3 months after certificate.

Contractor to supply ladders, plant, scaffolding etc.

Clause 18: The contractor shall supply 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 store), plants, tools, appliances, implements, ladders etc., scaffolding and temporary works requisite or proper for the execution of the work whether original, altered or substituted and whether Included in the Specification or other documents forming part of the contract or referred to in these conditions or not, 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 condition he is entitled to be satisfied or which he is entitled to require together with carriage thereof 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, weighing and assigning in the measurement or 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 the expenses of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale of his property or a sufficient portion thereof.

And be liable for damages arising from non-provision of lights fencings etc

The contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precaution, and to pay any dam4ge, and costs which may be awarded in any such suit, action, or proceedings to any 1 such persons or which may with the consent of the contractor be paid to compromise any claim by any such person.

Clause 18 (a): The final bill of the contractor shall not be paid unless or until he furnishes to the satisfaction of the Engineer-in-charge a proof of the price of the earth used for the works having been fully paid to the owners of the land from which the earth was removed or of the matter having been amicably settled with them. The contractor shall also be liable to indemnify the Government against all claims made proceedings and actions taken by any person in respect of the price of the earth removed by the contractor from his land for the work against all losses, damages, cost and expenses which the Government may suffer or incur as a result of such claims.

Clause 19 (a): No laborer below the age of 12 years shall be employed on the work.

Contractor Witness Executive Engineer

Clause 19(b): the contractor shall pay his labourers not less than the wages paid for similar work in neighborhood.

Clause 20: No work shall be done-on Sunday without the sanction in writing of the Engineer in Charge.

Works on Sunday

Clause 20 (a): In every case in which by virtue of the provisions of section 12, sub-section(1) of the Workman's Compensation 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 the prejudice to the rights of Government Under section 12, sub-section (2) of the 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 contractor whether under this contract or otherwise.

Contractor liable for payment of compensation to injured workmen or in case of death his relations.

Government shall not be bound to contest any claim made against it under section 12, subsection (1) 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.

Works not to be sublet.

Clause 21: 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, requisite reward of advantage, pecuniary or otherwise; shall either directly or indirectly be given, promised or offered by the contractor or any of his servant or agents to any public officer or person in the employment of Government, in any relating to his office or employment, or any such officer, or person shall become, in any way directly or indirectly interested in the contract, the Engineer-in-charge may thereupon by notice in writing rescind the contract and the security deposit of the contractor shall there upon stand forfeited and be absolutely at the disposal of Government and the same consequence shall ensure, as if the contract had been rescinded under clause 3 hereof, and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

Contract may be rescined & security deposit forfeited for subletting bribing or if contractor becomes insolvent.

Clause 22: 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 considered as whether or not any damage shall have been sustained.

way of compensation to be considered as reasonable compensation with our reference to actual loss.
Deductions of amounts due to The Government on any account whatsoever to be permissible from sums payable to a contractor

Clause 22 (a): Any excess payment made to the contractor inadvertently or otherwise under this contract on any account whatever and any other sum bound to the Government by the contractor in respect of this contract or any other on any account whatever, may be deducted from sum whatever, payable by Government to the contractor either in respect of this contract or any work order or contract or any other account by any other department of the contractor contractor.

Changes in constitution of firm

Clause 23: In the case of tender by partners, any change in the constitution of the firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.

Clause 24: All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the circle for the time being, 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.

Work to be under direction of Superintending Engineer.

Clause 25: No claims for payment of an extraordinary nature, such as claims for a bonus for extra employed in completing the work before the expiry of the contractual period at the request of the Engineer-in-charge or claims for compensation where work has been temporarily brought to a stand-still though no fault of the contractor, shall be allowed unless and to the extent that the same shall have been expressly sanctioned by the Haryana Government under the signature of its Secretaries.

Claims for payment of an extra ordinary nature to be referred to Government for decisions.

Clause 25 (a): If any dispute or difference of any kind whatsoever shall arise between the Governor of Haryana/ his authorised agent and the contractor in connection with or arising out of the contract or the execution of the work that is (i) whether before its commencement or during the progress of the work or after its completion (ii) and whether before or after the termination, abandonment or breach of the contract, it shall in the first instance be referred to for being settled by the Executive Engineer-in-charge of the work at the time and he shall within a period of sixty days after being requested in writing by the contractor to do so, convey his decision to the contractor and subject to arbitration as hereinafter provided such decision in respect of every matter so referred shall be final and binding upon the contractor. In case the work is already in progress, the contractor will proceed with the execution of the work on receipt of the decision by the Executive Engineer-incharge as aforesaid, with all due diligence whether he or the Governor of Haryana/his authorised agent requires arbitration as hereinafter provided or not. If the Executive Engineer in charge of the work has conveyed his decision to the contractor and no claim to arbitration has been filed with him by the contractor within a period of sixty days from the receipt of letter communicating the decision, the said decision shall be final and binding upon the contractor and will not be a subject matter of arbitration at all. If the Executive Engineer-in-charge of the work fails to convey his decision within a period of sixty days after being requested as aforesaid, the contractor may within further sixty days of the expiry of first sixty days from the date on which request has been made to the Executive Engineer in charge request the Engineer -in-Chief, that the matters in dispute be relevant to arbitration, as hereinafter provided.

Arbitration Clause

2. All disputes or differences in respect of which the decision is not final and conclusive shall at the request in writing of either party made in a communication sent through Registered A.D. Post, be referred to the sole arbitration of any serving Superintending Engineer or Chief Engineer of Haryana P.H.E.D. to be nominated by designation by the Engineer-in-Chief, Haryana, P.H.E.D. at the relevant time. It will be no objection to any such appointment that the arbitrator so appointed is a Government servant or that he had to deal with the matters to which the contract relates and that in the course of his duties as a Government servant, he had expressed in his visit on all or any of the matters in dispute. The arbitrator to whom the matter is originally referred being transferred or vacating his office, his successor-in-office, as such shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

In case the arbitrator nominated by the Engineer-in-Chief is unable or unwilling to act as such for any reason, whatsoever, the Engineer-in-Chief shall be competent to appoint and nominate any other Superintending Engineer or Chief Engineer, as the case may be, as arbitrator in his place and the arbitrator so appointed shall be entitled to proceed with the reference.

- It is also a term of this arbitration agreement that no person other than a person appointed by the Engineer-in-Chief, Haryana P.H.E.D. shall act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all. In all cases where the aggregate amount awarded exceeds Rs. 25,000/- (Rupees Twenty five thousand only) the arbitrator must invariably give reasons for his award in respect of each claim and counter-claim separately.
- The arbitrator shall award separately giving his award against each claim and dispute raised by either party including any counter-claims individually and that any lump-sum award shall not be legally enforceable.
- The following matters shall not lie within the purview of arbitration:-
- a) Any dispute relating to the levy of compensation as liquidated damages which has already been referred to the Superintending Engineer and is being heard or/and has been finally decided by the Superintending Engineer- in -charge of the work.
- b) Any dispute in respect of substituted, altered, additional work/committed work/defective work referred by the Contractor for the decision of the Superintending Engineer in charge of the Work if it is being heard or has already been decided by the said Superintending Engineer.
- c) Any dispute regarding the scope of the work or its execution or suspension or abandonment that has been referred by the contractor for the decision of the Government of Haryana and has been so decided finally by the Haryana Government.
- The independent claims of the party other than the one getting the arbitrator appointed, as also counter-claims of any party will be entertained by the arbitrator notwithstanding that the arbitrator had been appointed at the instance of the other party.
- 7. It is also a term of this arbitration agreement that where the party invoking arbitration is the contractor, no reference for arbitration shall be maintainable unless the contractor furnishes to the satisfaction of the Executive Engineer in charge of the work, a security deposit of a sum determined according to details given below and the sum so deposited shall, on the termination of the arbitration proceedings, be adjusted against the cost if any, awarded by the arbitrator against the claimant party and the balance remaining after such adjustment in the absence of any such cost being awarded, the whole of the sum will be refunded to him within one month from the date of the award :-

Amount of Claims

Rate of security deposit

For claims below Rs. 10,000

2% of amount claimed.

(ii)For claims of Rs. 1,0,000 and above and below 5% of amount claimed Rs.1,00,000

(iii) For claims of Rs. 1,00,000 and above

10% of amount claimed.

The stamp-fee due on the award shall be payable by the Party as desired by the arbitrator and in the event of such party's default the stamp-fee shall be recoverable from any other sum due to such party under this or any other contract.

- 8. The venue of arbitration shall be such place or places as may be fixed by the arbitrator in his sole discretion. The work under the contract shall continue during the arbitration proceedings.
- 9. Neither party shall be entitled to bring a claim for arbitration if the appointment of such arbitrator has not been applied within 6 months:-
- (a) of the date of completion of the work as certified by Executive Engineer in charge, or
- b) of the date of abandonment of the work, or
- c) of its non-commencement within 6 months from the date of abandonment or written orders to commence the work as applicable or
- d) of the completion of the work through any alternative agency or means after withdrawal of the work from the contractor in whole or in part and/or its recession, or
- e) of receiving an intimation from the Executive Engineer in charge of the work that final payment due to or recovery from the contractor had been determined which he may acknowledge and/or receive.

Whichever of (a) to (e) above is the latest.

If the matter is not referred to arbitration within the period prescribed above all the rights and claims of any party under the contract shall be deemed to have been forfeited and absolutely barred by time even for civil litigation notwithstanding.

- 10. It is also a term of this arbitration agreement that no question relating to this contract shall be brought before any Civil Court without first involving and completing the arbitration proceedings as above if the scope of the arbitration specified herein covers issues that can be brought before the arbitrator i.e. any matter that can be referred to arbitration shall not be brought before a Civil Court. The pendency of arbitration proceedings shall not disentitle the Government to terminate the contract and make alternative arrangements for the completion of the work.
- 11. The arbitrator shall be deemed to have entered on the reference on the day he issues notices to the parties fixing the first date of hearing. The arbitrator may from time to time with the consent of the parties enlarge the initial time for making and publishing the award.
- 12. It is also a term of this arbitration agreement that subject to the stipulation herein mentioned, the arbitration proceedings shall be conducted in accordance with the provisions of the arbitration Act, or any other latest law in force for the time being, Indian Arbitration and Reconciliation Act of 1996 shall be applicable on this contract.

Clause 26-: The contractor shall obtain from the stores of the Engineer-in-charge all stores and articles of European or American manufacture which may be required there of or in connection therewith unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-charge will be debited to the contractor in his account at the rate shown in the schedule attached to the contract, and if they are not entered in the schedule they will be debited at cost price which for the purposes of this contract shall include the cost of carriage and all other expenses whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

State of European
American manufacture to be obtained from Govt.

Fluctuation Railway Freight

Clause 26 (a): Any fluctuations in Railway rates which may occur during the subsistence of and affecting freights of any material to be supplied under this contract shall be brought to the notice of the Engineer-in-charge by the contractor within fifteen days from such date without prejudice to the rights of Government, should the contractor fail to comply with the above requirement any excess or short charge on account of such increase or decrease shall be credited to or recovered from the contractor. No alteration in contract rates shall be admissible in consequence of fluctuation in railway freight when such railway freight is on account of material which is required by a contractor in the manufacture of an article to be supplied under this contract e.g. fluctuation of railway freight on coal required for burning bricks will not be taken into consideration or for an article which forms part of a finished work for purpose of this clause. Similarly no alteration in rates will be allowed when a manufactured article is transported by rail from place A to place B to form part of a finished work.

Clause 27: The contractor shall be responsible for making his own arrangements for securing priorities and license for material and transportation required for the works and Engineer-in-charge shall not be held responsible in any way for making such arrangements for any of them.

Clause 28: In the case of any clause of work for which there is no such specification as is mentioned in rule 1, such work shall be carried out in accordance with the P.H.E.D. specifications and in the event of there being no PWD. specification, then in such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge.

e Definition of work

Action where

no specification

Clause 29: The Expression "work" or "works" where used in these conditions shall unless there be something either in the subject or context repugnant to such constructions be constructed and taken to mean the work by or by virtue of the contract, contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional.

Clause 30: The percentage referred to at page (3) of the tender will be calculated on the gross amount (value of finished work including cost of materials whether purchased from Government or direct of (I) the items of works to which the rates in the tender apply and also (2) the items of work to which rates exist in the Schedule of rates of the district.

Clause 31: The terms and conditions of the agreement have been explained to me/us and 1/we clearly understand them.

ADDITIONAL CLAUSE

Clause 32: The contractor states that he is not related to any of the officers employed by the Haryana PWD.

Clause 33: No pit shall be dug by the contractor near the site of the work for taking out earth for use on the work. In case of default the pit so dug will be filled in by the Department at the cost of the contractor.

Clause 34: Fair wage clause attached.

Clause 35: The contractor shall have to pay sales tax to Excise and Taxation Depth in accordance with the rules in force from time to time.

- **Clause 36:** All payments for work done under this contract shall be made by cheque to the contractor. The work covered by this contract as shown on plans which have been signed by the contractor are annexed herewith.
- *Clause37:* Should the tenderer withdraw or modify his tender within three months from the date of opening of tender he is liable to be blacklisted and earnest money forfeited.
- Clause 38: All royalty and compensation for building stone, bajri and stone metal etc. should be included in the rates to be quoted and is payable by the contractor.
- *Clause 39:* The rates given are for the finished work inclusive of Excise, duty, Octroi charges, sales taxes, service tax etc.
- Clause 40: It will be the responsibility of the contractor to ensure that the trees at the site of work and in the vicinity or their fruit etc are not damaged by his labour or agent. The cost of such damage, if any will be at the discretion of the Engineer-in-charge and shall be deducted from the bill of the contractor
- Clause 41: The contractor shall provide at his own cost separate latrine, bathing enclosures and platform for use of the men and women labour and keep them clean to the satisfaction of the Engineer-in-charge. He should also arrange, at his own expenses for clean drinking water, housing, medical facilities necessary for the welfare of the labour employed at his work, in case of his failure the same shall be provided by Government at contractor's cost. Any dispute regarding this will be settled by the Engineer-in-charge whose decision will be binding.
- Clause 42: Any material left on the site of work after one month from the date of completion of the work shall become the property of the Government and no payment shall be made for it.
- Clause 43: The amount of the work can be increased or decreased according to the requirement of the department and no claim whatsoever on this account will be entertained.
- Clause 44: The department reserve option to take away any items of the work or part thereof any time during the currency of the contract and re-allot it to another agency with due notice to the contractor without liability or compensation.
- Clause 45: It is not obligatory to the contractor to employ labour through Employment Exchange but he may avail of the facilities offered by the Employment Exchange in case he wishes to do so.
- Clause 46: No claim on account of fluctuation in prices due to war or any other cause will be entertained.
- Clause 47: The contractor shall be liable to make good all damages caused by breakage from the moment the stores, pipes and fittings etc., are handed over to his charge.
- Clause 48: No compensation whatever will be payable on account of any delay or default in the supply of material mentioned in the "List of material to be issued to the contractor", by the department and consequent delay in the execution of work.
- *Clause 49:* The contractor will inform the C.M.O. about the employment of laborer on the work for carrying out Malaria surveillance.
- *Clause 50:* No premium shall be payable on Non-schedule items, whether depicted in enclosed schedule of rates or not. Contractor will quote his separate rates as depicted on page No. 6 of the tender form.

Clause 51: Sales tax / income tax will be deducted from gross payment as per Govt. Instructions.

Clause 52: Labour Cess Charges @ 1% will be deduced from gross payment.

FAIR WAGES CLAUSES

- (a) The contractor shall pay not less than fair wage to labour engaged by him on the work.
 - Explanation: Fair Wage means wage whether for time or piece work notified at the time or inviting tenders of the work and where such wages have not been so notified, the wages prescribed by the Public Works Department, Building and Roads Branch, Haryana for the district in which the work is done.
- (b) The contractor shall notwithstanding the provisions of any agreement to the contrary caused to be paid fair wages to laborers indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work, as if the labourers had been directly employed by him.
- (c) In respect of labour directly employed on the works for the performances of the contractor's part of this agreement the contract shall comply with or cause to be complied with the Haryana Public Works Department Contractor's Labour's Regulations made by Government from time to time in regard to payment of wages, period deductions from wages, recovery of wages not paid and deductions unauthorisedly made maintenance of wage book, wage slip, publication of wages and other terms of employment inspection and submission of periodical returns and all other matters of alike nature.
- (d) The Executive Engineer or Sub-divisional Engineer concerned shall have the right to deduct from the money 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 benefit of the workers, nonpayment of wages or deductions made from his or their wages, which are not justified by the terms of the contract for non observance of the regulations referred to in clause

('c' above)

- (e) Vis-a-vis the Haryana Government, the contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractors.
- (f) The regulations aforesaid shall be deemed to be a part of this contract.
- (g) Attendance card should invariably be issued by the contractors to their workers, which should be returned to the contractors concerned at the time of receiving payment of their wages.
- (h) Before making payment to the contractors the authorities concerned should obtain a certificate from the contractors that he has made payment to all the workers connected with the execution of the work for which the payment is being made.
- (i) Contractors employing 50 or more workers on the site of a particular work should provide facilities of housing, latrines, water and light to their workers at their own expense.
- (j) The normal working hours of workers employed by contractors for the execution of work allotted to them should be 8 hours per day with a break of 2 hours during summer, one hour during winter after continuous work of 4 hours at the latest. The spread over should in no case exceed 10 hours, workers working beyond these hours, should be paid overtime wages at the double the ordinary rate of their wages calculated by the hour.

HARYANA PUBLIC WORKS DEPARTMENT

Contractor's Labour Regulation

1. Short title

These regulations may be called Haryana (1) Public Works Department Contractor's Labour Regulations.

2. Definition

In these regulations, unless otherwise expressed or indicated the following words and expression shall have the meaning hereby assigned to them respectively, that is to say.

- (1) Labour means workers employed by a Public Works Department contractors directly or indirectly a sub-contractor or other persons or by an agent on his behalf.
- (2) Fair wages means whether for item or piece work notified at the time of inviting tenders for the work and where such wages have not been so notified the wages prescribed by the Public Works Department for the district in which the work is done.
- (3) Contractor shall include every person whether a sub-contractor or headman or agent employing labour on the work taken on contract.
 - (4) "Wages" shall have the same meaning as defined in the payment of Wages Act and includes time and piece rate wages.

3. Display of notice regarded wages etc.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain a clean and legible condition at conspicuous places on the work notice in English and in the Local Language spoken by the majority of the workers, giving the rate of wages which have been certified by the Executive Engineer, the Superintending Engineer, the Chief Engineer or Regional labour Commissioner as fair wages and the hours of work for which such wages are earned and a copy of such notices to the District Labour Welfare Officer.

4. Payment of Wages

- (I) Wages due to every worker be paid to him direct.
- (II) All wages shall be paid in current coin or currency or in both.

5. Fixation of Wage Periods

- (I) The contractor shall fix the wage periods in respect of which the wages shall be payable.
- (II) No wage period shall exceed one month.
- (III) Wages of every workman employed on the contract shall be paid before the expiry of ten days after the last of we wage period in respect of which the wages are payable.
- (IV) When the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of succeeding the one on which his employment is terminated.
- (V) All payment of wages shall be made on a working day except the work is completed before the expiry of the wages period in which case final payment shall be made within 48 hours of the last working day.

Notes — The terms working day means a day on which the work on which the labour is employed is in progress.

6. Wages Book and Wages Slip etc.

(i) The contractor shall maintain a wage book of each worker in such a form as may be convenient but the same shall include the following particulars:-

- (a) Rate of daily or monthly wages.
- (b) Nature of work for which employed.
- (c) Total number of days worked during each wage period.
- (d) Total amount payable for the work during each wage period.
- (e) All deductions made from the wages with an indication in each case of the ground for which the deduction is made from the wage.
- (f) Wages actually paid for each wage period.
- (ii) The contractor shall also maintain a wage slip for each worker employed on the work. The wage slip shall contain all the particulars given in the wage book.
- (iii) The Executive Engineer may grant exemption from the maintenance of Wage Book and Wage Slips to a contractor who in his opinion may not directly or indirectly employ more than 50 persons on the work.

7. Fine and deductions which may be made from wages

- 1. The wages of workers shall be paid to him without any deduction of any kind except the following:
- (a) Fines.
- (b) Deductions for absence from duty viz., from the place or places where by the terms of his employment is required to work.
 - The amount of deduction shall be in proportion to the period for which he was absent.
- (c) Deductions for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money for which he is required to account, where such damage or loss is directly attributable to his neglect or default.
- (d) Any other deductions which the Government may from time to time allow.
- 2. No fine shall be imposed on a worker and no deduction for damage or loss be made until the worker has been given an opportunity of showing cause against such fines or deductions.
- 3. The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to half an anna in a rupee of the wage payable to him in respect of that wage period.
- 4. No fine imposed on any worker shall be recovered from him by installments, or after the expiry of 60 days from the date in which it was imposed.

8. Register of Fine etc.

- (1) The contractor shall maintain a Register of fine and of all deductions for damage or loss. Such Register shall maintain the reason for which fine was imposed or deduction for damage or loss was made.
- (2) The contractor shall maintain both in English and local Indian Language, a list approved by the Chief Labour Commissioner clearly stating the acts and commissions for which penalty or fine may be imposed on workmen and display it in a good condition at a conspicuous place on the work.

9. Preservation of Registers

The wage book, the wage slips and the Register of fines, deductions required to be maintained under these regulations shall be preserved for 12 months after the date of last entry made in them.

10. Power of Labour Welfare Officer to make Investigation Enquiry

The Labour Welfare Officer or any person authorised by the Government on their behalf shall have to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clause and provisions of these Regulations. He shall be investigating into any

complaint regarding the default made by the contractor or sub-contractor in regard to such provision.

11. Report of Labour Welfare Officer

The Labour Welfare Officer or any other person authorised as aforesaid shall submit a report of the result of his investigation or enquiry to the Executive Engineer concerned, indicating the extent if any to which the default has been committed and the amount of fine recoverable in respect of the acts of omission and commission of the labourer with a note that necessary deduction from the contractor's bill be made and the wages and other dues be paid to the labourers concerned.

12. Appeal against the decision of Labour Welfare Officer

Any person aggrieved to the decision and recommendation of the Labour Welfare Officer or other person so authorised may appeal against such decision to the Regional Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of his appeal to Executive Engineer concerned but subject to such appeal the decision of the Labour Welfare Officer shall be final and binding upon the contractor.

13. Representation of Parties

- (1) A workman shall he entitled to be represented in any investigation or inquiry under these regulations by:
- (a) An officer of a registered Trade Union to which he is a member.
- (b) An officer of Federation of Trade Unions to which the trade union referred it in clause (a) is affiliated.
- (c) Where the worker is not a member of any registered union, an officer of registered trade union connected with, or by any other workman employed in the industry in which the worker is employed.
- (2) An employer shall be entitled to be represented in any investigation or inquiry under these regulations by:
- (a) An officer of an association of employers of which he is a member.
- (b) An officer of an association of employees to which the association referred to in clause (a) is affiliated.
- (c) Where the employer is not a member of any association of employees by an officer of an association of employers connected with or by any other employer is engaged.

14. Inspection of Books

The contractor shall allow inspection of Wage Book, the Wage Slips and Register of Fines and deduction to any of his workers or his agent at a convenient time and place after notice is received or to the Labour Welfare Officer or any other person authorized by the Government on his behalf.

15. Submission of returns

The contractor will follow the contract labour (Regulation and Abolition Act 1970) and the contract labour (Regulations and Abolition Central Rule 1971) enforced by Haryana Labour and Employment Department Memo No. 12 (26-78-4- Labour dated 10-6-79).

The contractor shall submit periodical returns as specified from time to time.

16. Licensing of Contractor

Every contractor who employs or who employed on any day of the proceeding 12 calendar

months 20 or more workmen is covered by the Act and is required to obtain a license. The contractor should obtain the necessary license as required under section 12 of contract labour (Regulation and Abolition Act 1970) before commencing the work.

17. Amendments

The Haryana Government may from time to time amend these regulations on any question as to application, interpretation or effect of these regulations; the decision of the Labour Commissioner to Haryana Government in that behalf shall be final.

SCHEDULE NO.1

Schedule showing (approximately) materials to be supplied from the **Haryana Public Health Engineering Deptt.** Stores for work contracted to be executed and the rates at which they are to be charged for

Sr.	Description	Approximate	Rate to be charged	Place of issue for
No.		Qty.	from the	supply
			contractor	
1	2	3	4	5

1	standard packing reputed to weigh 50 Kg. inclusive of weight of bag		bag inclusive the value of bag + 3% storage charges	
2	C.I. Manhole covers and frames, Galvanised malleable iron steps, C.I. vent shafts, rolled steel, beams and other rolled sections for which fixing charges only are payable to the contractor		Free of cost	
3	Salt glazed stone ware pipes, chutes and other specials for use in the permanent sewerage works.		Free of Cost	
4	(a) Best quality jute spun tarred emp yarn on sewers and sanitary works (b) do (for water supply)		(a) Rsper Kg.(b) Free of cost for labour rate items	
5	Mild steel rods and section for reinforcement in random length as supplied by the manufacturers or their accredited agents.		(a) Free of cost (for labour rate items)	
6	Angle iron, flat iron, tee iron and other light structural steel including rivets, bolts, nuts and washers etc.		(a) Free of cost(for labour rate items)(b) RsPer MT	
1 7	C.I. P.V.C., H.D.P.E., G.I. Pipe and special, sluice valves, Peet Valves, Fire Hydrants, Surface boxes and other fittings etc., for which only labour rate is to be paid to the contractor	3	4 Free of cost (for labour rate items)	5 At P.H. Store Kaimri Road, Hisar
8	(a) Pig lead for Sanitary works		Rs Per Kg.	
	4) Pi 1 1 2 5 7			
	(b) Pig lead for C.I. water pipes		Free of cost (for labour rate items)	

Executive Engineer
PHE Division No.1, Hisar
For & on behalf of Governor of Haryana

Additional Conditions of Contract

- 1. The cement will be arranged by the Contractor/ Agency/ Firm at his own level. The Contractor/ Agency/ Firm may quote his rates accordingly.
- 2. The cement will be arranged by the Contractor/ Society/ Agency/ Firm at his own level. The cement shall be OPC-43 grade, duly ISI marked & confirming to IS-8112 with latest amendments. The cement manufactured by Mini Cement Plant shall not be used. In case the contractor is allowed by the department to use PPC cement duly ISI marked & confirming to IS-1489 with latest amendments for non RCC works then the recovery of Rs.15/- per bag of 50Kg, cement be made as per notification on revision of ceiling premium date 23.01.2009.
- The cement and steel shall be purchased from authorized Distributor or Manufacturer or Authorized Dealer.
- 4. The cement arranged by the Contractor/ Agency will be brought at site and shall be kept in the store maintained at site, provided with dual locking system i.e. 1st Key of lock with representative of the department and 2nd key of lock with authorized representative of agency.
- 5. The contractor/ agency will inform the Executive Engineer/ Sub Divisional Engineer for the quantity of the cement brought at site with bill/challan in the name of that agency before using the same and Executive Engineer Incharge or his authorized representative may check the actual receipt of cement at site.
- 6. The Engineer-in-Charge or his authorized representative may, if need be, also send the cement for testing to any Government Lab/ reputed Lab. The sample of the cement will be collected as per BIS specifications in the presence of the Contractor/ Agency or his authorized representatives. In case the cement is found as per ISI specifications then the cost of testing will be borne by the Department, but in case the cement sample fails to meet the BIS requirements, then appropriate action as per contractor agreement will be taken. The cost on the testing of cement along with any loss caused to government shall also be recovered from the contractor/ agency and no claim in this respect will be entertained.
- 7. The stock of cement at site shall not be more than one-month consumption and only sufficient quantities shall be kept to ensure continuity of the work.
- 8. The cement consumption register showing date of cement brought at site by the contractor/ agency and its day-to-day utilization will be maintained. The said register shall be open to inspection by representatives of the Engineer-in-Charge during his visit at site. The consumption and receipt of cement in the register shall be initiated jointly by the authorized representative of the contractor/ agency and representative of Engineer-in-charge. The said register will be issued by office of concerned Sub Divisional Engineer under his dated signature for each agreement separately. The register will also contain the columns for work executive against the cement issued.
- 9. Quality check register will be maintained at site and regular sampling of work executive every month shall be recorded in the same.
- 10. The PWD (PHED), Haryana Public Health Engineering Department reserves the right of negotiations as per policy approved by the State Government with the tenderers in case the

- prices quoted are felt to be on higher side or otherwise. The negotiations will be carried out with 1st, 2nd & 3rd lowest contractors. The highest amongst them will be called first and lowest tenderer in the last. If during negotiation tenderer other than lowest reduces his prices/amount below then those of lowest then lowest tenders will be counter offered this price/amount and in eventuality of him not accepting the counter offered the same shall be offer to second lowest and so forth. Tenderer who refuses the counter offer will not have any right to the bid later on.
- 11. The Engineer-in-Charge will opt for 3rd party inspection other than Department. In addition to inspection by Departmental staff. The 3rd party would inspect the work during its execution to ensure execution of work as per specifications/ agreement and also quality control i.e. drawl of samples, testing & other items etc. The report of the same would be submitted to Engineer-in-Charge by the 3rd party. The agency / contractor shall be bound by the report of 3rd party inspection and shall take remedial measures for execution of work as per specifications in agreement. The inspection and sample testing charges will be borne by the Department.
- 12. The labour cess @ 1% of the cost of work done by the contractor shall be deducted from each bill.
- 13. Steel will be arranged by agency/contractor/society/firm at his own level. The steel shall be Fe 500 EQR TMT of TISCO, SAIL, RINL, IISCO. If the agency is allowed to use steel Fe 500 EQR TMT of other companies, than the above, but ISI marked the deduction @Rs.5000/- per MT will be made, for the quantity consumed in the work.
- 14. The quantity of items for which contractor will quote rate either free of cost or abnormally low rates i.e. the rate which are below 25% of schedule rate/market rate, will be executed 100% at site. If any such item is not required or partially required, then the difference in schedule rate/market rate and contractor rate will be recovered, for the non-executed components of work.

A. Appointment of Arbitrator

- (i) In so for as the Engg. Deptts. Are concerned, the Engineer-in-chief, Chief Engineer will make the appointment of Arbitrator at their own level, in the cases, where the cost of the work including interest does not exceed Rs.5.00 lacs in each individual cases. The case involving more than Rs.5.00 lacs shall be submitted to the Administrative Deptt. For final approval for such cases (involving more than Rs.5.00 lacs), the department shall, prepare a panel of Arbitrators and submit to the Administrative Department for final approval.
- (ii) In other Govt. department, the appointment of Arbitrators will be appointed by the Heads of Departments concerned and submit to administrative department for final approval. While doing so, the point regarding appointment of an IAS officer as an Arbitrator shall be kept in view.
- (iii) In order to avoid unjustified benefit to the contractor/Agency two or three Arbitrators may be appointed for cases involving financial implication of more than Rs.5.00 lacs. The possibility of appointment of Arbitrator other than the office of Deptt. concerned should not be ignored, especially in case of world Bank Project Works. The appointment of out-sided arbitrator in respect of the world Bank Project cases, keeping in view the merit and circumstances of the case may also be kept in view.
- (iv) While issuing the appointment orders of the Arbitrator, it will be clearly specified that the Arbitrator will give a speaking award along with item wise detail of claim and amount of awarded expenditure and reasons thereof.

B. Agreement

The agreement which is entered into with the contractor at the time of allotment of the work should be clear and specified. For claim exceeding Rs.5.00 lacs it should be clearly indicated in the agreement that the State Govt. can appoint one more arbitrators. The arbitrator may be asked to give a speaking award within a reasonable time as per the provisions in the Arbitration and conciliation Act 1996. A format of such agreement should be prepared by the Deptt. concerned in consultation with the law Deptt.

C. Proper Defence of the Arbitration Cases

The department will fix the responsibility of the concerned Officer or any other office of the Deptt. along with the legal wing of the Deptt. To defend such cases properly, the replies of the Deptt. will be got approved from the Chief Engineer (in case of Engg. Deptt.) Heads of Department and vetted from the progress of the disposal of such cases.

D. Delay in Arbitration Cases

It has also been noticed that in most of the cases unnecessary delay occur, As result of which the State Govt. have to pay the interest. The responsibility of the concerned Officer/ official may be fixed by the department/ Administrative Deptt. in each individual cases, for such lapses.

E. Payment of amount awarded in arbitration cases

In order to avoid any litigation and interest liability, payment will be made by the Head of Deptt. out of their existing provisions, and if needed, proposal for making provisions in the respective Heads of account shall be sent to Finance Deptt. at appropriate time. Budgetary procedure will be followed strictly.

The above decision may please be brought to the notice of all concerned and the receipt of this letter may I also is acknowledged.

NOTES FOR SCHEDULE NO.1

- 1. All the materials shown in Schedule No.1 will be issued at the place of issue given there and all the cost of loading, unloading and carriage from the place of issue to site of work will be borne by the contractor and this is included in the rate for the work to be carried out by the contractor.
- 2. *In case any quantity of material i.e. cement, steel, coal, or any other controlled or uncontrolled commodity etc. issued to the contractor by the Engineer-in-charge for use directly on the aforesaid work or manufactures of materials required in connection therewith, which is not utilized for the purpose for which it is issued and is otherwise disposed of by him or spoiled or lost or allowed to get deteriorated or used in excess of the quantities actually required to be used as per specifications therein stipulated or those fixed by the Engineer-in-charge, the cost of such quantities of that materials shall without prejudice to other rights and remedies available to the Government be recoverable from the contractor at double the rate at which it is agreed to be supplied to the contractor. In case of other materials issued free of cost, the recovery will be affected at double the stock issue rates.
- 3. 3% Storage charges will be levied on all material issued to the contractor from stock, the cost of which is recoverable.
- 5. The contractor will have to make his own arrangement for bricks and tiles, cement & steel etc.
- 6. The consumption of cement will be regularized as per PWD specification alongwith amendments, if any.
- 7. The octroi, terminal tax royalty and other taxes and charges on the materials issued shall be borne by the contractor.

DNIT PROFORMA

1 Name of Work

: Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto".

2 Estt. Cost : App. cost Rs.146.83 lacs

3 Funds : Rs. 35.00 lacs

4 Expenditure : Nil

5 Adm. App. No. & Dt.

6 Position of detail estimate :

7 Detail of structures : under Preparation

Sr. No.	Description	Structure taken in this DNIT	Balance	Remarks
1	RCC Inlet Channel 1103 mtr	RCC Inlet Channel 1103 mtr		
2	RCC Open Channel IN SIDE 45mtr	RCC Open Channel IN SIDE 45mtr		
2	1 No. S/S tank	1 No. S/S tank		
3	1 No. RCC F.bed	1 No. RCC F.bed		
4	1 No. RCC HLT	1 No. RCC HLT		
5	1 No. RCC CWT water	1 No. RCC CWT water		
6	Const. Of B/wal	Const. Of B/wal		
8	Path & Road	Path & Road		
9	Distribution System	Distribution System		
10	Pumping Machinery	Pumping Machinery		
11	Const. of RCC OHSR		Const. of RCC OHSR	
12	Pipe line at head Works	Pipe line at head Works		
	Note			
1	Date of opening of tender			
2	Premium applicable	10.11.2011		

Name of work: Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying,

						Apı	o. Cost Rs.	81.20	Lacs	
		(a) Sche	dule ite	ms bas	ed on F	laryana Sc	hedule of Ra	tes 1988		
S. N o.	Sch. Item No.	Description	Qty.	Uı	nit	Rate	Amount	C.P. (in %)	Amount involved due to CP	Tota
						(in Rs.)	(in Rs.)		(In Rs.)	(in Rs.)
1	2	3	4	į	5	6	7	8	9	10
T	0.7	excavation in	300	100	Cum	932.00	2/90.00	3/0%	10345.00	13141.00
1	6.7	Earth work in	300	100	cum	932.00	2796.00	370%	10345.00	13141.0
		foundation of under ground structures sludge drains								
		etc.and similer works in ordinary								
		dressing and disposal of surplus								
		soil as directed within a lead of 30 mtrs. For depth up								
		to 2 mtrs. Below ground level.								
2	8.5 (b)	Dismantling Brick work, tile masonry or tile lining an tile terracing	160		cum	35.70	5712.00	550%	31416.00	37128.0
		b) in cement	l	i	1	1			i l	

cum

cum

403.10

407.60

16124.00

13043.00

450%

600%

concrete

in

and

brick

32

1:4:8 with Stone aggregate 40 mm nominal size

class

work laid in cement sand mortor 1:5 in Foundation & Plinth

10.39

11.3

Cement

foundation

plinth.

First

3

4

72558.00

78258.00

88682.00

91301.00

1 1		l _	1 - 1	i	1	1		1	l	52
5	10.79 + 10.95	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work but excluding steelreinforcement centring and shuttering foundation and plinth. excluding steel Extra over item No.10.79 to 10.94 if 1: ½: 3 mix is used, instead of 1:2:4	22		cum	712.70	15679.00	450%	70556.00	86235.00
6	10.89 + 10.95	Cement concrete 1:2:4 with stone aggregate 20mm nominal sizes for reinforced concrete work for walls(10cm to 20cm thickness) straight and curved excluding steel reinforcement but including centring and shuttering, laid in position, complete in all respects. Extra over item NO.10.79 to 10.94 if 1:1½:3: mix is used, instead of 1:2:4.	75		cum	1708.9	128171.0	450%	576770.00	704941.00
7	18.22	Fe-500 EQR TMT steel bars for RCC works, where notincluded in the complete rate of RCC includingbending, binding and placing in position complete.	85		Qtl	917.05	77949.00	500%	389745.00	467694.00
8	9.5 Note of Chapt er 9	Centring and shuttering for faces of walls, partitions, retaining walls, well staining and the like (vertical or battering) including attached pilasters, buttresses etc. (Extra for steel. Shuttering i.e. 45% of labour rate)	2050		Sqm	8.84	18122.00	500%	90610.00	108732.00

										53
9	10.82 +10.9 5 (a)	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in slab not exceeding 25 degree with horizontal with inclination but including centring and shuttering, excluding steel reinforcement laid in position, complete. Extra over item No.10.79 to 10.94 if 1: ½: 3 mix is used, instead of 1:2:4	42		Sqm	1084.8	45562.00	450%	205029.00	250591.00
		1,2,7					323158.		1525287	1848445
2. 5	S & S Tar	 nk (48.30 X 48.30 X 3.	.66 mtr	·)			00			
1	6.7	Earth work in excavation in foundation of under ground structures sludge drains etc.and similer works in ordinary soil including dressing and disposal of surplus soil as directed within a lead of 30 mtrs. For depth up to 2 mtrs. Below ground level.	9100	100	cum	932.00	84812.00	370%	313804.40	398616.00
3	10.39	Cement concrete 1:4:8 with Stone aggregate 40 mm nominal size in foundation and plinth.	58		cum	403.10	23380.00		105210.00	128590.00
4	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth.	6		Cum	615.60	3694.00	450%	16623.00	20317.00

									54
5	10.79 + Note V-e (2) + 10.95 (a)	Cement concrete 1:2:4 with stone aggregate 20 mm nominal size for reinforced concrete work but excluding steel reinforcement centring and shuttering laid in Position Complete. Extra over item No. 10.79 to 10.94 if 1:1½:3 mix is used instead of 1:2:4 . (625.80 +2.55+ 86.90)	45	Cum	715.25	32186.00	450%	144837.00	177023.00
6	11.3	First class brick work laid in cement sand mortor 1:5 in Foundation & Plinth	105	Cum	407.60	42798.00	600%	256788.00	299586.00
7	14.9	Conglomerate floor 40mm thick cement pointing 1:2:4 topping	75	Sqm	31.50	2363.00	400%	9452.00	11815.00
8	15.3+ 15.75	12 mm thick cement plaster 1:2 & Cement rendering on plaster 1mm thick (16.60+4.25)	260	Sqm	20.85	5421.00	500%	27105.00	32526.00
9	15.60	Cement pointing 1:2 deep variety on brick and tile work.	100	Sqm	9.90	990.00	500%	4950.00	5940.00
10	18.22	Fe-500 EQR TMT steel bars for RCC works, where not included in the complete rate of RCC including bending, binding and placing in position complete.	24	Qtl.	917.05	22009.00	500%	110045.00	132054.00
11	19.29	Double layer brick lining for wate storage and sedimentation tanks consisting of:							
	i)	10mm Thick cement mortar 1:5 in subgrade. First layer of 6.83cm thick brick of 22.86cm x11.11cm Size laid in 1:5 cement mortar as mentioned above.							
	ii)	Sand witched plaster 1:3 cement mortar 12mm thick.							
	iii)	Second layer of brick laid in 1:3 cement mortar with 6mm thick layer of 1:3 cement mortar over sand Witched plaster including cost of dressing sub-grade, scaffolding Etc. and curing complete in all respect: -							

										55
	a)	Bed	1670		Sqm	83.00	138610.0 0	600%	831660.0	970270.0
	b)	Side Slope	1100		Sqm	88.20	97020.00	600%	582120.00	679140.00
12	9.13	Shuttering for faces of concrete foundations and foundation beams (vertical or battering)	45		sqm	30.65	1379.00	400%	5516.00	6895.00
		TOTAL					454662.		2408110	2862772
3. 0	One Nos	 s. RCC HLT (12.50 X 8.3	0 mtr)				00			
1	6.7	Earth work in excavation in foundation of under ground structures sludge drains etc.and similer works in ordinary soil including dressing and disposal of surplus soil as directed within a lead of 30 mtrs. For depth up to 2 mtrs. Below ground level.	30	100	cum	932.00	280.00	370%	1036.00	1316.00
2	6.13 (a)	earth filling under floors with surplus , excavated from foundation and taken only from outside the building plinth, in 15 cum layer including ramming watering and consolidating lead upto 30 ltrs.	800	100	cum	343.40	2747.00	370%	10164.00	12911.00
3	10.39	Cement concrete 1:4:8 with Stone aggregate 40 mm nominal size in foundation and plinth.	18		cum	403.10	7256.00	450%	32652.00	39908.00
4	10.79	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work but excluding steelreinforcement centring and shuttering foundation and plinth. excluding steel Extra over	18		cum	625.80	11264.00	450%	50688.00	61952.00

	-				-			-		56
5	10.90	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestals and approach slabs of bridges etc, excluding steel reinforcement but including centring and shuttering, laid in position, complete in all respect(for work upto 1.5 mtrs. Below ground level)	8		cum	687.10	5497.00	450%	24737.00	30234.00
6	10.95	Extra over item No.10.79 to 10.94 if 1: ½: 3 mix is used, instead of 1:2:4	54		cum	86.90	4693.00	450%	21119.00	25812.00
7	18.22	Fe-500 EQR TMT steel bars for RCC works, where not included in the complete rate of RCC including bending, binding and placing in position complete.	45		QtI.	917.05	41267.00	500%	206335.00	247602.00
7	9.5 Note of Chapt er 9	Centring and shuttering for faces of walls, retaining wall, well steining and the like (vertical or battering) including attached pilasters, buttresses etc. (Extra for steel, shuttering i.e. 45% of labour rate)	230		Sqm	8.84	2033.00	500%	10165.00	12198.00
		TOTAL					75037.00		356896.00	431933.00
4.	1 No. R	CC Filter Bed (14.19x9	.46 mtr	•)						
1	6.7	Earth work in excavation in Foundation, trenches of under ground structure and other similar works in ordinary soil, including dressing and disposal of surplus soil, as directed within a lead of 30 mtrs for depth upto 2 mtrs below natural ground level.	500	100	cum	932.00	4660.00	370%	17242.00	21902.00

2	10.39	Coment concrete	30		.m	403.10	12093.00	450%	54418.50	66512.00
2	10.59	Cement concrete 1:4:8 with Stone	30		ım	403.10	12093.00	430 70	34418.30	00312.00
		aggregate 40 mm nominal size in								
		foundation and								
3	10.79	plinth. Cement concrete	20	CU	ım	625.80	12516.00	450%	56322.00	68838.00
		1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work but								
		excluding steelreinforcement centring and shuttering foundation and plinth. excluding steel								
4	10.86	Cement concrete 1:2:4 with stone aggregate 20mm nominal sizes for reinforced	19	CL	ım	1101.2 5	20924.00	450%	94158.00	115082.00
		concrete work for walls exceeding 20cm thickness(Straight								
		and curved) beams, girders, stairs columns, battens and lintels etc. excluding steel reinforcement, but including centering and shuttering laid in position complete								
		in all respect.								
5	10.87	Cement concrete 1:2:4 with stone aggregate 20mm nominal sizes for reinforced concrete work for walls(10cm to 20cm thickness) straight and curved excluding steel reinforcement but including centring and	21	CU	ım	1400.0	29400.00	450%	132300.00	161700.00
		shuttering, laid in position, complete in all respects								

	1		,					1		58
6	10.82	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in slab not exceeding 25 degree with horizontal with inclination but including centring and shuttering, excluding steel reinforcement laid in position, complete.	4		cum	997.90	3992.00	450%	17964.00	21956.00
7	10.90	Cement concrete 1:2:4 with stone aggregate 20mm nominalsize for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestals and approach slabs ofbridges etc., excluding steel reinforcement but includingcentring and shuttering, laid in position, complete in allrespects, (For work up to 1.5 meters below ground level.)	32		cum	687.10	21987.00	450%	98942.00	120929.00
8	10.95	Extra over item No.10.79 to 10.94 if 1: ½: 3 mix is used, instead of 1:2:4	96	C	cum	86.90	8342.00	450%	37539.00	45881.00
9	9.5 Note of Chapt er 9	Centring and shuttering for faces of walls, retaining wall, well steining and the like (vertical or battering) including attached pilasters, buttresses etc. (Extra for steel, shuttering i.e. 45% of labour rate)	340	C	Sqm	8.84	3006.00	500%	15030.00	18036.00
10	9.13	Shuttering for faces of concrete foundation and Foundation beams.	10	\$	Sqm	30.65	307.00	400%	1228.00	1535.00
11	18.22	Fe-500 EQR TMT steel bars for RCC works, where not included in the complete rate of RCC including bending, binding and placing in position complete.	60		Qtl	917.05	55023.00	500%	275115.00	330138.00

		_								59
12	14.48 a(ii)	While glazed tiles 10cmx10cm,5mm thick in skirting and dado on 12mm thick cement coarse sand plaster 1:3 in base and mix jointed with while cement slurry in joints including bevelled corners.	23	sc	ηm	231.20	5318.00	95%	5052.00	10370.00
13	10.94	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work for bed plates in square, rectangular, polygonal, circular andelliptical wells, excluding steel reinforcement, but including centring & shuttering laid in position, complete.	2	CL	ım	727.50	1455.00	450%	6548.00	8003.00
14	10.41	Cement concrete 1:2:4 with brick ballast 20mm nominal size in foundation & plinth.	3	CL	ım	615.60	1847.00	450%	8312.00	10159.00
15	29.94	Providing & fixing SFRC MANHOLE COVERS AND FRAMES MARKED WITH IS: 12592 including setting the same to correct lines and levels in 1:2 cement sand mortar over manhole including carriage, loading, unloading, stacking handling, Re-handling etc. complete in all respect to the satisfaction of Engineer-in-Charge	2	Ea	ach	1100	2200.00	5%	110.00	2310.00
16	28.50	Prov.& placing in horizontal layers filtering media screened, washed and cleaned as described below:-								
	a)	Top Layer: Fine sand screened, cleaned and washed andgraded (effrective size 0.2m to 0.4mm with uniformity coefficient 2.0 to 3.0) from ghaggar or other approved source.	92	С	ım	160.30	14748.00	1200 %	176976.00	191724.00
	b)	Second Layer: Coursed sand screened, cleaned and washed and graded from 3mm to 6mm (from Ghaggar or approved equivalent quarry).	21	CL	mı	288.20	6052.00	380%	22998.00	29050.00

Witness

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	c)	Third Layer: bajri coursed washed and graded from 6mm to 20mm (from ghaggar or approvede equivalent quarry).	13		cum	145.75	1895.00	380%	7201.00	9096.00
	d)	Fourth Layer: Broken stone, screened, vashed and graded from 50mm to 75mm (from Ghaggar or approved equvalent quarry).	14		cum	135.50	1897.00	380%	7209.00	9106.00
	e)	Bottom layer: Brokent stone, screened, vashed and graded from 50mm to 75mm (from Ghaggar or approved equivalent equarry	24		cum	126.60	3038.00	380%	11544.00	14582.00
		TOTAL					210700.0 0		1046208.5 0	1256909
5. C	One No.	R.C.C. Clear Water Tan	k (10.2	20x6.8	0 mtr)					
1	6.7	Earth work in	350	100	cum	932.00	3262.00	370%	12069.00	15331.00
		excavation in foundation of under ground structures sludge drains etc.and similer works in ordinary soil including dressing and disposal of surplus soil as directed within a lead of 30 mtrs. For depth up to 2 mtrs. Below ground level.								
2	9.13	Shuttering for faces of concrete foundation and Foundation beams.	6		Sqm	30.65	184.00	400%	736.00	920.00
3	10.39	Cement concrete 1:4:8 with Stone aggregate 40 mm nominal size in foundation and plinth.	15		cum	403.10	6047.00	450%	27212.00	33259.00

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4	10.79 + note	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work but excluding steelreinforcement centring and shuttering foundation and plinth. excluding steel Extra over	6	cum	628.35	3770.00	450%	16965.00	20735.00
5	10.82	Cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in slab not exceeding 25 degree with horizontal with inclination but including centring and shuttering, excluding steel reinforcement laid in position, complete.	9	cum	997.90	8981.00	450%	40415.00	49396.00
6	10.86	Cement concrete 1:2:4 with stone aggregate 20mm nominalsizes for reinforced concrete work for walls exceeding 20cmthickness(Stra ight and curved) beams, girders, stairs columns,battens and lintels etc. excluding steel reinforcement, butincluding centering and shuttering laid in position complete inall respect.	1	cum	1101.2 5	1101.00	450%	4955.00	6056.00

Witness

7	10.87	Cement concrete 1:2:4 with stone aggregate 20mm nominal sizes for reinforced concrete work for walls(10cm to 20cm thickness) straight and curved excluding steel reinforcement but including centring and shuttering, laid in position, complete in all respects Cement concrete	12	cum	1400.0 0	33600.00 8245.00	450%	151200.00 37103.00	184800.00 184800.00
0	10.30	1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestals and approach slabs of bridges etc, excluding steel reinforcement but including centring and shuttering, laid in position, complete in all respect(for work upto 1.5 mtrs. Below ground level)	12	Cuiii	007.10	0243.00	430 %	37103.00	43340.00
10	10.95	Extra over item No.10.79 to 10.94 if 1: ½: 3 mix is used, instead of 1:2:4	52	cum	86.90	4519.00	450%	20336.00	24855.00
11	18.22	Fe-500 EQR TMT steel bars for RCC works, where not included in the complete rate of RCC including bending, binding and placing in position complete.	48	Qtl.	917.05	44018.00	500%	220090.00	264108.00
12	9.5 Note of Chapte r 9	Centring and shuttering for faces of walls, retaining wall, well steining and the like (vertical or battering) including attached pilasters, buttresses etc.	300	Sqm	8.84	2652.00	500%	13260.00	15912.00

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13	29.94	Providing & fixing SFRC MANHOLE COVERS AND FRAMES MARKED WITH IS: 12592 including setting the same to correct lines and levels in 1:2 cement sand mortar over manhole including carriage, loading, unloading, stacking handling, Re-handling etc. complete in all respect to the satisfaction of Engineer-in-Charge	2		Each	1100	2200.00	5%	110.00	2310.00
		TOTAL					118579.00		544451.00	663030.00
6. L		f pipe line at Head Wor	ks							
1	6.7	Earth work in excavation in foundation of under ground structures sludge drains etc.and similer works in ordinary soil including dressing and disposal of surplus soil as directed within a lead of 30 mtrs. For depth up to 2 mtrs. Below ground level.	20	100	cum	932.00	186.00	370%	688.00	874.00
2	6.8	Excavation for pipe lines running under pressure in Trenches and pits, in open area, where disposal of surplus Earth is done along with the alignment and restoration of Unmetaled or unpaved surface to its original condition In ordinary soil.								
	a)	Without timbering and shoring up to 1.50 meters depth	100	100	cum	1030.0 0	1030.00	370%	3811.00	4841.00
	b) i	With timbering and shoring Up to 1.5-meter depth.	120	100	cum	1422.0 0	1706.00	370%	6312.00	8018.00
	ii)	Exceeding 1.5-meter depth.but upto 2.25 mtr depth	60	100	cum	1472.0 0	883.00	370%	3267.00	4150.00
	iii)	Exceeding 2.25 meter depth.but upto 3.00mtr depth	60	100	cum	1597.0 0	958.00	370%	3545.00	4503.00
	iv)	Exceeding 3.00- meter depth.but upto 4.50 mtr depth	60	100	cum	1718.0 0	1031.00	370%	3815.00	4846.00
3	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth.	2		cum	403.10	806.00	450%	3627.00	4433.00
4	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth.	1		Cum	615.60	616.00	450%	2772.00	3388.00

									64
5	11.3	First class brick work laid in cement sand	8	cum	415.85	3327.00	600%	19962.00	23289.00
		mortor 1:5 in Foundation & Plinth							
6	15.5	12 mm thick cement plaster 1:4,	60	Sqm	12.70	762.00	500%	3810.00	4572.00
7	18.22	Fe-500 EQR TMT steel	1	Qtl	917.05	917.00	500%	4585.00	5502.00
		bars for RCC works, where not included in							
		the complete rate of							
		RCC including							
		bending, binding and placing in position							
		complete.							
8	28.10	Providing and fixing CAST IRON DOUBLE							
		FLANGED SLUICE							
		VALVES PN-1.6 MARKED WITH IS:14846 including							
		nuts & bolts marked with IS:1363, rubber sheet							
		marked with IS:638 etc.							
		carriage loading, unloading, stacking,							
		handling, re-handling							
		etc. complete in all respects to the							
		satisfaction of Engineer-							
		in-charge (Makes AARKO, VENUS, LEADER,							
		SI PANJA, UPADHAY). (FOR PUMPING							
		MACHINERY & HEAD							
		WORK) 200mm I/d	8	each	9945.0	79560.00	10%	7956.00	87516.00
		150mm I/d	4	each	0 5709.0	22836.00	10%	2284.00	25120.00
		-			0				
		100mm I/d	1	each	3698.0 0	3698.00	10%	370.00	4068.00
9	28.10 (A)	Providing and fixing CAST IRON DOUBLE							
	(* ')	FLANGED SWING							
		CHECK TYPE							
		REFLUX (NON RETURN) VALVES							
		PN-1.6 MARKED							
		WITH IS:5312							
		including nuts & bolts marked with IS:1363,							
		rubber sheet marked							
		with IS:638 etc.							
		carriage loading, unloading, stacking,							
		handling, stacking,							
		etc. complete in all							
		respects to the satisfaction of							
		Engineer-in-charge							
		(Makes							
		AARKO, VENUS,							
		LEADER, SI PANJA, UPADHAY). (For							
		pumping machinery)							
		150mm I/d	4	each	5638	22552.00	10%	2255.00	24807.00

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10	29.28	Providing and fixing steel bar embedded plastic steps of size 263mm x 165mm of orange colour, conforming to specifications, in pump chambers, manholes etc., having minimum 3mm thick Polypropylene polymer confirming to IS: 10910 encapsulated on 12mm dia ribbed steel bars per IS: 1786. The rate include cost of setting the same to correct lines and levels duly embedded in 1:2:4 cement concrete including carriage, loading, unloading, stacking, handling, re-handling etc., complete in all respects to the satisfaction of Engineerin-Charge	20		Each	90	1800.00	0%	0.00	1800.00
11	20 E <i>c</i>	in-Charge.								
11	28.56	Providing and fixing Cast Iron Detachable Joints class-20 marked with IS: 8794 for use with A.C/PVC/ CI pipes complete with 2 nos. rubber rings marked with IS:5382 & IS: 10292 and appropriate number of nut and bolts marked with IS: 1363 including carriage, loading, unloading etc. complete in all respect to the satisfaction of the Engineer-in-Charge. (Excavation will be paid separately).								
		200mm i/d	16		Each	564.00	9024.00	10%	902.00	9926.00
		TOTAL	-10		Lacii	301.00	91596	1070	63462	221653.00
7. E	Boundary	y wall (116 mtr)	<u>I</u>	<u>I</u>	l		3233		33.32	
			10	100	ı	11001	442.00	4050/	1000.00	2225.00
1	6.6	Earth work in excavation in foundation trenches etc., in all kind of soils not exceeding 2 mtrs. depth including dressing of bottom and sides of trenches stacking the excavated soils clear from the edge of excavation & subsequent filling around masonry	40	100	cum	1108.1	443.00	425%	1883.00	2326.00
2	10.39	Cement concrete 1:4:8 with stone aggregate 40mm nominal size in foundation and plinth.	7		cum	403.10	2822.00	450%	12699.00	15521.00
3	11.2	First class brick work laid in cement sand mortor 1:6 in Foundation & Plinth	56		Sqm	393.45	22033.00	600%	132198.0	154231.00
4	15.11	15mm thick cement plaster 1:5	190		Sqm	14.25	2708.00	500%	13540.00	16248.00
5	15.60	Cement pointing 1:2	160		Sqm	9.90	1584.00	500%	7920.00	9504.00
		deep variety on brick and tile work			- 11					22233

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7	10.11	Damp proof course 25mm thick of cement concrete 1:2:4 using stone aggregate 20mm nominal size with two coats of bitumen 20/30 penetration at 1.65 kg. Per sqm laid hot and sanded	27		Sqm	26.40	713.00	450%	3209.00	3922.00
8. P	ucca Path	TOTAL 8 Road					30303		171449	201752
1	6.7	Earth work in	15	100	cum	932.00	140.00	370%	518.00	658.00
		excavation in foundation of under ground structures sludge drains etc.and similer works in ordinary soil including dressing and disposal of surplus soil as directed within a lead of 30 mtrs. For depth up to 2 mtrs. Below ground level.		100	Can					
2	10.39	Cement concrete 1:4:8 with Stone ballast 40 mm nominal size in foundation and plinth.	20		cum	403.10	8062.00	450%	36279.00	44341.00
3	10.41	Cement concrete 1:2:4 with stone aggregate 20mm nominal size in foundation and plinth.	10		Cum	615.60	6156.00	450%	27702.00	33858.00
4	11.48 a)	11.43cm thick brick wall laid in cement sand mortar 1:4 in superstructure	15		Sqm	55.10	827.00	600%	4962.00	5789.00
		TOTAL					15185.00		69461.00	84646.00
9. D	istributio	n System	I	I		I				
1	6.8	Excavation for pipe lines running under pressure in Trenches and pits, in open area, where disposal of surplus Earth is done along with the alignment and restoration of Unmetaled or unpaved surface to its original condition In ordinary soil.								
	a)	Without timbering and shoring up to 1.50 meters depth	300	100	cum	1030.00	3090.00	370%	11433.00	14523.00
2	8.28	Dismentaling brick or flagged stone slab flooring without concrete base	45		Sqm	1.70	77.00	550%	424.00	501.00
3	14.20	Dry brick on edge paving sand grouted over 50mm thick earth and mud plaster	45		Sqm	4.14	186.00	600%	1116.00	1302.00

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4	28.10	Providing and fixing							
		CAST IRON DOUBLE							
		FLANGED SLUICE							
		VALVES PN-1.6							
		MARKED WITH IS:14846							
		including nuts & bolts marked with IS:1363,							
		rubber sheet marked with							
		IS:638 etc. carriage							
		loading, unloading,							
		stacking, handling, re-							
		handling etc. complete in							
		all respects to the							
		satisfaction of Engineer-							
		in-charge (Makes							
		AARKO, VENUS,							
		LEADER, SI PANJA, UPADHAY).							
	g)	200mm I/d	2	each	9945.00	19890.00	10%	1989.00	21879.00
5	28.47	Bailing out water from the							
		trenches for making new							
		connection in fully							
		charged pipe lines size of							
		the main with which connection is to be made.							
		connection is to be made.							
		a) Upto 200mm internal diameter	1	each	67.50	68.00	300%	204.00	272.00
6	28.56	Providing and fixing							
	20.00	CAST IRON Detachable							
		Joints Class-15 marked							
		with IS:8794 for use with							
		AC/PVC/CI pipes							
		complete with 2 nos.							
		rubber rings marked with							
		IS:5382 & IS:10292 and appropriate number of							
		nut and bolts marked with							
		IS:1363 including							
		carriage loading,							
		unloading etc. complete							
		in all respect o the							
		satisfaction of Engineer-							
		in-charge (Excavation will be paid separately).							
	f)	100mm I/d	6	each	220.00	1320.00	10%	132.00	1452.00
	g)	200mm I/d	4	 each	564.00	2256.00	10%	226.00	2482.00
		TOTAL				26887.00		15524.00	42411.00

	Abstract of cost of Schedule item						
Su	Sub Work No.1 (Head Works)						
1	Sub Head No.1	Inlet Channel	1848445.00				
2	Sub Head No.2	One No. RCC S/S Tank	2862772.00				
3	Sub Head No.3	One No. RCC HLT	431933.00				
4	Sub Head No.4	One No. R.C.C. Filter Bed	1256909.00				
5	Sub Head No.5	One No. Clear Water Tank	663030.00				
6	Sub Head No.6	Laying of pipe line at Head Works	221653.00				
7	Sub Head No.7	Boundary wall	201752.00				
8	Sub Head No.8	Pucca Path & Road	84646.00				
9	Sub Head No.9	Distribution System	42411.00				
	Total		7613551.00				

Sr. No.	Name of item with brief description	Qty.		Unit	Rate to be quoted by the contt.
	Non Schedule Item		1		
1	Supply & Erection of Horizontal spindle split casing type pumping sets of following duties directly coupled to AC squirrel cage induction type motor with accessories as described in Schedule No. II complete in all respect with priming arrangement with complete base frame.				
	A) Clear water pump set				
	2100 LPM, 45 mtrs head with squirrel cage induction motor 1440 RPM, 3 phase 50 Hz of four star rating	1	Nos.	Each	
	B) Raw water pump set				
_	2100 LPM 12 mtrs head with squirrel cage induction motor 1440 RPM, 3 phase 50 Hz of four star rating	2	Nos.	Each	
2	A) Detail of pipe and specials				
	A) CI D/F bends, Reducers,	760	Kg.	Per	
	tees etc. for H/W, P/M			Kg.	
2(a)	Supply and fixing following CI D/F and specials bell mouth/ Reflex valves including cost of Jointing materials, excavation, laying jointing, fefilling including making adequate supports of masonry/ concrete/ steel for delivery and suction pipe from bell mouth in the collecting tank upto the rising main laid by the department as per plan shown from the foundation wall of the pump chamber for all the raw water and clear water pumping sets at water works, as per specification given in schedule No. II (for machinery & inlet channel outlet connection of structures.				
	a) 200 mm i/d C.I. D/F Pipe	20	mtr	Per mtr	
	b) 150 mm i/d C.I. D/F Pipe	45	mtr	Per mtr	
	c) 100 mm i/d C.I. D/F Pipe	6	mtr	Per mtr	

i	i		ı		
3	Supply, erection, testing and	1	Nos.	Job	
	commissioning Wall mounted				
	electrical panel board,				
	fabricated from 16 SWG CRCA				
	sheet duly stouted with				
	suitable angle iron frame work				
	and completely powder coated				
	of approximate size 1200x900				
	mm and 400 mm deep having				
	following items.				
	a) MCCB main suitable for			1	
	complete water				
	works/Boosting station				
	installatioin (L&T Siemens,				
	ABB)				
	,			1	
	b) Volt meter 0 to 500 Volt 1				
	No. (AE/KAPPA/L&T)				
	c) CT Amp meter of suitable				
	Amp. for each set				
	1 ·				
	(AE/KAPPA/L&T)				
	d) CT Coil/suitable Amp./5				
	(AE/KAPPA/L&T)				
	e) VSS & ASS 1 No. each of				
-	approved make				
	f) SPP for each set of				
	approved make				
	g) Motor starter, star delta for				
	= -				
	suitable for pump set				
	1No.2100 LPM x 45 Mtr Head				
	Motor (L&T Siemens, ABB)				
	h) Capacity KVAR as per			1	
	1 ' ' '				
	requirement				
	i) Indicating Lamp - One Set				
	j) MCCB suitable capacity for				
	each set				
				1	
	k) wiring of suitable size				
	inside the Panel Board				
	I) Suitable Capacity Change				
	Over switch for raw water &				
	clear water			<u> </u>	
4	Supply, erection, testing and	1	Nos.	Job	
	commissioning Wall mounted			1	
	electrical panel board,			1	
	fabricated from 16 SWG CRCA				
	sheet duly stouted with				
	suitable angle iron frame work				
	and completely powder coated				
	of approximate size 1200x900				
	mm and 400 mm deep having				
	following items.				
	a) MCCB main suitable for				
	1 /				
	 				
	works/Boosting station				
	installatioin (L&T Siemens,				
	ABB)		 	-	1
	,				
	b) Volt meter 0 to 500 Volt 1				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T)				
	b) Volt meter 0 to 500 Volt 1				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T)				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T)				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T) d) CT Coil/suitable Amp./5				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T) d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T)				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T) d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T)				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T) d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T) e) VSS & ASS 1 No. each of				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T) d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T) e) VSS & ASS 1 No. each of approved make				
	b) Volt meter 0 to 500 Volt 1 No. (AE/KAPPA/L&T) c) CT Amp meter of suitable Amp. for each set (AE/KAPPA/L&T) d) CT Coil/suitable Amp./5 (AE/KAPPA/L&T) e) VSS & ASS 1 No. each of				

1	g) Motor starter, star delta for	ĺ		ĺ	
	suitable for pump set 2 Nos.				
	2100 LPM x 12 Mtr. Head				
	Motor (L&T Siemens, ABB)				
	h) Capacity KVAR as per				
	requirement				
	i) Indicating Lamp - One Set				
	j) MCCB suitable capacity for				
	each set				
	k) wiring of suitable size				
	inside the Panel Board I) Suitable Capacity Change				
	Over switch for raw water &				
	clear water				
5	Supply erection, testing of ISI	60	Mtr.	Per	
	marked copper wire for 3 Nos			mtr.	
	motors with under ground system in PVC and flexible				
	pipes copper wire size 25mm				
	Sq three core complete in all				
	respects with accessories like				
	thimble etc. (Transformer to				
-	Panel & Motor)				
6	Supply erection, testing of ISI marked copper wire for 1 No				
	panel boards from main				
	switch to panel and wiring of				
	panel complete in all respects				
	with accessories like thimble				
(i)	etc. Raw water 4mm	50	Mtr.	Per	
(1)	Raw water 4mm	30	14161.	mtr.	
(ii)	Clear water 16mm	50	Mtr.	Per	
				mtr.	
7	Providing laying jointing and fixing of cast iron "V" notch	1	Nos.	Each	
	duly marked with beam				
	including embedding.				
8	Providing & fixing suitable	1	No.	Each	
	floating arms along with				
	swivel bend as per required				
	specifications approved by Engineer-incharge (200 mm)				
9	Stringing out D.I.pipe sand				
	specials castings along				
	trenches and laying the same				
	in trenches to correct,				
	alignment and gradients				
	including cartage from divisional stroes or nearest				
	railway station to site of works				
	or nearest railway station to				
	site of works and return of				
	pieces of pipes to stores.(for				
	Head work & Distribution				
——	I System)			İ	
1	System) b) 200mm i/d (110+200)	320	Mtr.	mtr	
	b) 200mm i/d (110+200)	320	Mtr.	mtr	
	b) 200mm i/d (110+200) a) 100 mm i/d (30+144)	320 174	Mtr.	mtr mtr	
10	b) 200mm i/d (110+200)				
10	b) 200mm i/d (110+200) a) 100 mm i/d (30+144) Cutting D.I. pipes and specials and chipping or filing the				
10	b) 200mm i/d (110+200) a) 100 mm i/d (30+144) Cutting D.I. pipes and specials and chipping or filing the surface to a uniform finish.	174	Mtr.	mtr	
10	b) 200mm i/d (110+200) a) 100 mm i/d (30+144) Cutting D.I. pipes and specials and chipping or filing the surface to a uniform finish. 200 mm i/d				
10	b) 200mm i/d (110+200) a) 100 mm i/d (30+144) Cutting D.I. pipes and specials and chipping or filing the surface to a uniform finish.	174	Mtr.	mtr	

11	Jointing D.I. socketted pipes, valves and specials with run lead caulked joints excluding cost of lead and yarn but including cost of labour fuel and tools etc. tested complete.						
	b) 200 mm i/d	60	Nos	Each			
	a) 100 mm i/d	40	Nos	Each			
Credit of Bricks & Brick bats for Inlet Channel							
12	Bricks 160x60% = 96 cum x 480 = 46080 (-)	46080	No.	Each			
13	Brick bats 160x40% = 64 cum (-)	64	cum	cum			

FINAL ABSTRACT OF COST						
1	HSR Portion			7613551		
2	N.S. Item			659867		
	Credit of brick & brick bats (-)		(-)	157440		
			Total	8115978		
		Say, Rs				

NOTES

Name of work: Aug./Renov. Water Supply Scheme Village Dobhi Distt. Hissar. "Construction of open RCC inlet channel,1 No. S/S tank, 1 No. RCC High Level Tank, 1 No. RCC clear water tank, 1 No. RCC filter bed ,Boundary Wall Pucca Path & Road, Distribution Stayem and laying of pipe line at head works, supplying, installing and commissioning of pumping machinery for raw water & clear water including all required electrical, mechanical equipments and all other works contingent thereto".

App. Cost - Rs.81.20 lacs

- Any other item not included in this contract schedule of rates and got done, at site of work shall be paid according to Haryana PWD. Schedule of rates 1988, subject to the ceiling premium and rate accepted in the allotment letter/ approval issued by the competent authority against the agreement.
- The work will be carried out strictly in accordance with the PWD. Book of specification, edition 1990, which will for a part and parcel of this contract agreement
- In this contract schedule of rates, only essential portion/description of items has been written, but it will deem to cover the entire items as fully described in Haryana PWD. Schedule of rates, 1988.
- The Engineer-in-charge shall be entitled to order work against any item of work, shown in this contract schedule of rates here in after called the schedule, to any extent and without any limitation, whatsoever, as may be required in his opinion of the purpose of work, irrespective of the fact that the quantities are omitted in the schedule of rates, shown more or less than the work ordered to be carried out.
- All the items in this contract schedule of rates are subject to the foot notes and notes given in the Haryana PWD. Schedule of rates, 1988, regarding these items.
- The premium should be quoted above/below/at par ceiling rates and no condition should be given. In case any condition is tendered, this will be considered as null and void & only the premium or discount quoted by the tenderer shall be accepted. In case, any tenderer refuses to accept this, his earnest money will be forfeited.
- All the amendments issued in the Haryana PWD. Schedule of rates, 1988, up to the date of opening of tender will be applicable, on the contract schedule of rates.
- Approximate quantities are given in this contract schedule of rates and may vary at the time of execution of work. The payment will however be made for the actual work done by the contractor.
 - No extra claims whatsoever will be admissible to the contractor on account of variation, alternation or deletion of any item over the quantities depicted in this contract schedule of rates.
- The rates for any item of work not provided in the Haryana PWD. Schedule of rates 1988 but executed at site will be decided by the competent authority and the decision will be binding upon the contractor.

- No claim will be entertained from the contractor, in case of any omission in description of rate and unit, which might have occurred in any of the items taken in this schedule, while comparing this schedule or on account of typing comparison or over-writings. In case of any error, the same shall be rectifiable at any stage as per Haryana PWD. Schedule of rates 1988 along with the amendments on the same received from time to time.
- The rates of Non-Schedule items of the contract schedule should be quoted, separately, for which no premium is applicable; The rates of dismantled bricks should also be quoted.
- The material to be used by the firm will be ISI marked conforming to relevant ISI mark/IS specification with latest amendments.
- As per Engineer-in-Chief, Haryana Public Health Engineering Department, Panchkula memo No.31736-93-W/S & /GA-II dated 18.7.2008; Labour cess @ 1% will be deducted from the gross amount of work done.
- The cement will be arranged by the Contractor / Society / Agency / Firm at his own level and may quote rates accordingly. The cement shall be OPC 43 grades, duly ISI marked & confirming to IS 8112 with latest amendments. The cement manufactured by Mini Cement Plant shall not be used. In case, contractor is allowed by the department to use PPC cement duly ISI marked & confirming to IS-1489 with latest amendments then the recovery of Rs.25/- per bag of 50 kg. cement be made as per notification on revision of ceiling premium dated 10.11.2011.
- The cement and Steel shall be purchased from authorized Distributor or Manufacturer or Authorized Dealer.
- The cement arranged by the Contractor / Agency will be brought at site and shall be kept in the Store maintained at site, provided with dual locking system i.e. 1st Key of lock with representative of the Deptt. and 2nd Key of lock with authorized representative of agency.
- The Contractor / Agency will inform the Executive Engineer / Sub Divisional Engineer for the quantity of the cement brought at site with bill / challan in the name of that agency before using the same and Executive Engineer in charge or his authorized representative may check the actual receipt of cement at site.
- The Engineer-in-Charge or his authorized representative may, if need be, also send the cement for testing to any Govt. Lab/ reputed Lab. The sample of the cement will be collected as per BIS specifications in the presence of the Contractor / Agency or his authorized representatives. In case, the cement is found as per ISI specifications then the cost of testing will be borne by the Deptt. but in case the cement sample fails to meet the BIS requirements, then appropriate action as per Contract Agreement will be taken. The cost on the testing of cement along with any loss caused to Govt. shall also be recovered from the Contractor / Agency and no claim in this respect will be entertained.

- The stock of cement at site shall not be more than one-month is consumption and only sufficient quantities shall be kept to ensure continuity of the work.
- The cement consumption register showing date of cement brought at site by the Contractor / Agency and its day-to-day utilization will be maintained. The said register shall be open to inspection by representatives of the Engineer-in-Charge during his visit at site. The consumption and receipt of cement in the register shall be initialed jointly by the authorized representative of the Contractor / Agency and representative of Engineer-in-Charge. The said register will be issued by office of concerned Sub Divisional Engineer under his dated signature for each agreement separately. The register will also contain the columns for wok executed against the cement issued.
- Quality check register will be maintained at site and regular sampling of work executed every month shall be recorded in the same.
- The Public Health Engineering Department, Haryana reserves the right of negotiation as per policy approved by the State Government with the tenderers in case the prices quoted are felt to be on higher side or otherwise. The negotiations will be carried out with 1st, 2nd & 3rd lowest contractors. The highest amongst them will be called first and lowest tenderer in the last. If during negotiation, tenderer other than lowest reduces his prices / amount below then those of lowest then lowest tenderer will counter offer his price / amount and in eventuality of his not accepting the counter offer, the same shall be offer to second lowest and so forth. Tenderer, who refuses the counter offer, will not have any right to the bid, later-on.
- The Engineer-in-Charge will opt for 3rd party inspection other than Department. In addition to inspection by Departmental staff, the 3rd party would inspect the work during its execution to ensure execution of work as per specifications / agreement and also quality control i.e. drawl of samples, testing & other items etc. The report of the same would be submitted to Engineer-in-Charge by the 3rd party inspection and shall take remedial measures for execution of work as per specifications in agreement. The inspection and sample testing charges will be borne by the Department.
- The contractors/agencies shall fill up the component-wise rates in figures and works for Non-Schedule items in the space given on page 6 under the heading (B) Non-Schedule Items. The tender of the contractor / agency, who does not fill up the component-wise rates, shall be out rightly, rejected as an 'irresponsive tender' and earnest money of the concerned contractor/agency shall be forfeited for not observing the required procedure.

Executive Engineer

EXECUTIVE

ENGINEER

Schedule-II

GENERAL CONDITIONS OF CONTRACT

1. Definition

The term "work" means the complete scope of work covered in this DNIT as per the specification mentioned hereinafter which is being let out on contract. The term Superintending Engineer means the Superintending Engineer, Public Health Engineering Circle, Hisar and the terms "Engineer-in-Charge" means the Executive Engineer, Public Health Engineering Division No.1 Hisar of the Haryana Public Health Engineering Department under whose jurisdiction the work will be carried out. The term "Contractor" means the person or firm, whose tender for the work is accepted and the term 'Contract' means the contract covered by the contract agreement to be entered into by the said contractor for carrying out and completion of the said work with the Engineer-in-Charge.

2. Consideration for contract and extent of Works:

- a) The contract price payable to the contractor in respect of various items of work shall be the consideration for all and every description of work done, executed and performed in and about and incidental to the work described or mentioned in this schedule and in the drawings or be intended so to be whether the same shall be incidental or necessary to the ultimate completion or only for the temporary purposes of the said work or be required for carrying out of such precautions as the Engineer-in-Charge may require for the protection of the public, workmen and the work and also existing building etc., or as set out in the conditions of the contract. It also includes other incidental item or work, materials and things required to make the work satisfactory in all respects and complying with the contractor's guarantee as incorporated hereinafter.
- b) Commissioning of work will be responsibility of the contractor.
- c) The contractor shall be fully responsible for making good the imperfection of any item of work executed under this agreement as per clause 17 of the contract agreement. The contractor shall repair necessary items of work during maintenance period.
- d) All the works executed under this work will be tested by the contractor at his own cost. The water retaining structure shall be tested for water tightness and hydraulic efficiency. The contractor shall be responsible for making good imperfection in water tightness and hydraulic efficiency.
- e) All the works after completion and maintenance period will be handed over to Engineer- incharge in good working condition.

a) Terms & conditions of payments:-

Payment will be made as per actual work executed at site at the accepted rates. 5% estimated cost as performance money will be deposited by agency before commencement of work.

b) Release of security:-

5% security including earnest money will be deducted from each running bill of the contractor in addition to performance money.

The deduction of security referred to the clause-I of contract agreement, shall be released as per clause 7(a) of the tender document after a period of 3 months after payment of final bill of whole work except work included in Schedule IV, but amount equivalent to estimated value for operation & maintenance component of the contract shall be deducted from his security. The amount held shall be released:-

- i)
- ii)
- $1/5^{th}$ after completion of $1/5^{th}$ period of O & M. $1/5^{th}$ after completion of $2/5^{th}$ period of O & M. $1/5^{th}$ after completion of $3/5^{th}$ period of O & M. $1/5^{th}$ after completion of $4/5^{th}$ period of O & M. iii)
- iv)
- Next 1/5th after completion of entire period of O & M. v)

However, it can be released against bank guarantees of equal amount, valid beyond 3 months of O & M period.

This amount is required for security of maintenance being done by contractor and to recover any other amount due from the contractor.

Rates for operation & maintenance will be quoted per month and payment will be made monthly. The period for maintenance contract can be extended against a separate agreement if both parties agree on same terms, conditions and rates.

4. Possession of the Site:-

The Engineer-in-charge shall, as soon as practicable, after the acceptance of the tender or the execution of the contract agreement as the case may be give possession of the site to the contractor for use of the site for the work covered by his contract so as to enable him to commence and continue the execution of the work included in his contract, but the non-delivery or use of such site or sites or any part thereof shall not effect the use of such contract or the specifications and it shall not entitle the contractor to any increased allowance in respect of money or otherwise.

5. **Extension of time limit**

Time for the completion of the work may be extended in proportion to the delay involved on the application by the contractor but this will not entitle him to any extra payment on account of any reason what so ever it may be.

6. Reinstatement / Restoration

All land, property, fencing likely to be disturbed or damaged during the execution of the contract work, shall be made good by the contractor at his own expense, to the satisfaction of the authorities and owners concerned.

7. Contractor's responsibility for verification of site conditions

The contractor shall be deemed to have verified as to the dimensions. levels, character and nature of all the works, buildings, roads lands, safe bearing capacity, spring level and other things with regard to any connection they may have with the works of the contract, and shall be deemed to have obtained his own information on all matters which could in any way influence his tender.

No claim for extra work or otherwise shall be allowed in consequence of any misunderstanding, error or incorrect information on any point or of any inaccuracies in reference thereto which may appear

in the specifications, nor shall the contract be nullified in consequence of any such misunderstanding, error, incorrect information or inaccuracies.

8. Local Taxes:-

All toll, octroi, terminal taxes, sale tax, VAT, excise duty, import duty or any other Municipal taxes shall be paid by the contractor on all tools & plants and materials imported or taken delivery by him including all goods and material delivered to him free on rail and those transported by him to the site of work from outside and he shall not be entitled to reimbursement for any payments made on account of such octroi, or terminal tax charges. This applies to materials issued from stores of the Engineer-in-charge as well.

If any fresh tax of any kind is levied at any stage or any existing tax is subsequently enhanced after the date of the contractor's tender, the same shall be paid by the contractor and no extra allowances shall be given to him by reason of such fresh or enhanced taxes, octroi, terminal tax or other having been levied.

9. Import license and Foreign Exchange:

Import license and foreign exchange, if required, will have to be arranged by the successful tenderer himself and this is solely his responsibility.

10. Services and Notices on the contractor:-

Any notice, order or instructions which the Engineer-in-charge may wish or require to give in relation to works, shall be deemed to be duly served on the contractor, if recorded in the order book kept on the work, or if it is delivered personally to the contractor or any of his agent or sent by post to his office, and address of such office and any change therein be intimated to Engineer-in-Charge in writing and got recorded in the agreement.

11. Work executed outside working hours:-

If the contractor executes any works outside ordinary working hours during the absence of the Engineer-in-charge or his authorized representatives and without having previously given him sufficient notice in writing that such work was about to be executed, he will be required to dismantle and reconstruct any work so executed, if ordered to do so by the Engineer-in-charge in writing under his hand, no payment shall be payable for the work dismantled.

12. Engineer-in-charge, his Assistants or third party nominated by Engineer to have access to work and store:-

The Engineer-in-charge with his Assistant Engineer, Junior Engineer, Inspection Work Mistries, Munshies, Inspectors and all other persons authorized by him shall at all times have full access to the works and the contractor's workshop and factories, stores, brick fields, godowns and all other places where materials are procured, collected or stored for the works and shall have full power to send workman upon the work to execute any other works not included in the contract and for those operations the contractor shall afford every reasonable facility during the working hours, provided that such operation shall be carried on in such manner as not to impede the progress of the work included in the contract, but the department shall not be held responsible for any damage which may happen to be occasioned by any such other works.

The Engineer-in-charge can opt for third party inspection other than Deptt. in addition to inspection by Departmental staff stated above. The third party would inspect the work or materials during its execution to ensure execution of work as per specifications/agreement and also quality control i.e. drawal of samples, testing & other items etc. The report of the same would be submitted to Engineer-in-charge by the third party. The agency/contractor shall be bound by report of third party inspection and shall take remedial measures for execution of work as per specifications. In case samples fail, the testing charges will be recovered from the contractor.

Quality check register will be maintained at site and regular

sampling of work executed every month shall be recorded in the same.

13. Interference with or damage to other works:-

The contractor shall not cause any interference with the work of any other contractor engaged for the construction at site of work and shall take all due precautions to prevent his work people from causing any damage to the work of other contractor while in the course of execution of the work covered in the scope of work or otherwise.

14. Location:-

The location of the site of work can be changed subsequently and no extra payment will be admissible to the contractor.

15. Inspection of material:

Before supply of material like RCC pipes and machinery, inspection will be carried out by the Engineer-in-Charge or his authorized representative at the factory premises. A proper inspection note will be issued. Any material can be ordered to be inspected by Engineer-in-Charge at the premises of its production.

16. General

The contractor shall be responsible for arranging and executing the works of centering, scaffolding, staffing, planting, timbering, strengthening, shoring, pumping, fencing, watching and lighting at night as well as in day. The contractor shall himself provide huts, sheds or godowns for safe storage of material and for labour etc.

The contractor shall give all necessary personal superintendence during the execution of the work and as long thereafter the Engineer-in-Charge may consider necessary

Additional Conditions of Contract - I

- The work will be carried out strictly in accordance with the PWD. book of specification edition 1990 as amended from time to time, which forms a part and parcel of this contract agreement.
- 2. In this contact schedule of rates only essential portion of description of item has been written but it will deem to cover the entire items as fully described in Haryana PWD. Schedule of rates, 1988 as amended from time to time till the date of receipt of tenders.
- 3. The Engineer-in-Charge shall be entitled to order work against any item of work shown in this contract schedule of rates hereinafter called the schedule to any extent and without any limitation where-ever as may be required in his opinion for the purpose of work, irrespective of the fact that the quantities are omitted all together in the schedule or are shown more or less than the work ordered to be carried-out.
- 4. The rate for any item of work not provided in the Haryana PWD schedule of rates 1988 but executed at site will be decided by the competent authority and the decision will be binding upon the contractor.
- 5. All the items in this contract schedule of rates are subject to foot notes/notes given in this Haryana PWD. Schedule of rates 1988 with amendment regarding these items.
- 6. Approximate quantities are given in the contract Schedule of rates and may vary at the time of execution of work. The payment will however be made for the actual work done by the contractor. No extra claims whatsoever will be admissible to the contractor on account of variation, alteration or deletion of any item over the quantities depicted in this contract schedule of rates.
- All amendments issued in the Haryana PWD Schedule of rates 1988 till the date of receipt of tenders will be applicable on the contract schedule of rates.

- 8. The contractor will have to make his own arrangement of bricks and all other materials required for successful execution, completion and operation and maintenance of the work.
- 9. Any other item not included in this contract schedule of rates and got done at site of work will be paid according to relevant item of Haryana PWD schedule of rates @ rates accepted in the allotment letter and approval issued by the competent authority against this contract.
- No claim will be entertained from the contractor in case any omission in description of rates and DNIT which might have occurred in any of these items taken in schedule while comparing this schedule or on account of typing/comparison or over writing in case of any error, the same shall be rectifiable at any stage as per Haryana PWD Schedule of rates 1988 alongwith the amendments on the same received from time to time.
- 11. The premium should be quoted above or below the contract schedule of rates and no condition should be given. In case, any condition is tendered, this will be considered as Null and void and only the premium or discount quoted by the tenderer shall be accepted. In case, any tenderer refuses to accept this, his earnest money will be forfeited.
- 12. No tendered premium shall be payable on N.S. items. The contractor will quoted his rate for each N.S. item.
- 13. The contractor will dispose off the excavated surplus soil, at his own cost to a place as directed by the Engineer-in-Charge, but shall by all means, clear the site from the extra earth. No extra lead, lift, wet earth, loading, unloading and carriage will be paid to the contractor who will have no claim on the same at anytime later. Further, the contractor will quote his rate taking into account the effect of the surplus earth which will be disposed off by him at his own cost.
- 14. All the reinforcement shall be Fe-500 TMT Steel Bars grade/tor steel conforming to relevant BIS and of TATA, RATHI, TISCO, IISCO and shall be procured by the contractor at his own cost. If the agency is allowed to use Steel FE-500 TMT of Other Components then the above but ISI marked the deduction @Rs.5000/- M.T. will be made.
- 15. The rates included in the contract cover the cost of filling of the water retaining structures, testing for water tightness, to the full satisfaction of the Engineer-in-Charge and emptying the same if desired.
- 16. Minimum 25mm clear cover be provided on the reinforcement on the inner side of the water retaining structures. The contractor shall give structurally safe and water proof structures.
- 17. Contractor shall be fully responsible for structural safety in all respect of the structures existing and under construction as per scope of work of the DNIT.

Cement

18. The cement will be arranged by the Contractors/ Society/ Agency/ Firm at his own level. The cement shall be ordinary Portland-43 grade or Puzzolana Portland cement, duly ISI marked & conforming to IS-8112 with latest amendments. The cement manufactured by Mini cement plants shall not be used. In case the contactor is allowed to use PPC cement duly ISI marked & conforming to IS-1489 with latest amendments for non RCC work then a recovery of Rs. 15/per bag of 50 kg. cement be made.

The cement shall be purchased from authorized Distributor or

Manufacturer or Authorized Dealer.

The cement arranged by the Contractor/Agency will be brought at site and shall be kept in the store maintained at site, provided with dual locking system i.e. one key of lock with representative of the Deptt. and 2nd key of lock with authorized representative of agency.

The contractor/Agency will inform the Executive Engineer/Sub Divisional Engineer for the quantity of the cement brought at site with bill/ challan in the name of the agency before using the same and Engineer-in-Charge or his authorized representative may check the actual receipt of cement at site.

The Engineer-in-Charge or his authorized representative may, if need be, also send the cement for testing to any Govt. Lab./reputed Lab. The samples of the cement will be collected as per BIS specifications in the presence of the Contractor/Agency or his authorized representative. In case the cement is found as per ISI specifications then the cost of testing will be borne by the Deptt., but in case the cement sample fails to meet the BIS requirements, then appropriate action as per Contract Agreement will be taken. The cost on the testing of cement alongwith any loss caused to Govt. shall also be recovered from the Contractor/Agency and no claim in this respect will be entertained.

The stock of cement at site shall not be more than one month's consumption and only sufficient quantities shall be kept to ensure continuity of the work.

The cement consumption register showing date of cement brought at site by the contractor/Agency and its day-to-day utilization will be maintained. The said register shall be open to inspection for representatives of the Engineer-in-Charge during their visit at site. The consumption and receipt of cement in the register shall be installed jointly by the authorized representative of the contractor/ Agency and representative of Engineer-in-Charge. The said register will be issued by office of concerned Sub Divisional Engineer under his dated signature for each agreement separately. The register will also contain the columns for work executed against the cement issued.

19. **WATER**:

All water to be used on the work shall be clear fresh water to be obtained from a source to be approved by the Engineer-in-Charge. It shall be entirely free from brackish salts, alkaline, acid mineral impurities and conform to clause 4.3 of IS-456-2000 and shall be stored and carried in clear tank and vessels.

The contractor shall provide at his own expenses at all time arrangement for supply of water for all purposes to the full satisfaction of the Engineer-in-Charge and shall pay all charges to Govt. in case the arrangements for supply of water are made by Govt.

20. Cement Concrete:

All mixes shall be as per IS 456-2000 and IS 3370-1965 (part 1 to IV) as amended from time to time. In the reinforced cement concrete for water retaining structures the grade of cement concrete shall be as per specifications.

The concrete shall conform to IS 456-2000 (as amended upto date) ordinary grade and described in 5.33 and shall be subject to such test as specified in the above standard.

All concrete used in RCC work shall be poured by mixing in a Mechanical mixer, shall be compacted with mechanically operated vibrators to be arranged by the contractor at his own cost and charges.

The Engineer-in-Charge may require reasonable number of test to be made on the concrete during the progress of work. Not less than 3 standard specimens shall be made for each test. The specimen shall be cured under field conditions. The cost of testing shall be borne by the contractor.

If the specimen fails to comply with the requirements set out in IS 456-2000 referred above, Engineer-in-Charge will have right to order the demolition of such work as he may think to have been carried out in

weak concrete at the cost of contractor and no payment shall be made for the faulty construction. The method of making work cube test shall be according to as given in IS 456, 4.1 read with IS 516-1959. The Engineer-in-Charge shall have the right to order the test of any material used in RCC work to determine their suitability for the purpose. The cost of all such test shall be borne by the contractor. All the faulty materials so found / determined shall be removed from the site of work by the contractor at his own cost within period specified by the Engineer-in-Charge.

21. Mode of Construction

The RCC shall be cast monolithic with supporting beams. Steel shuttering and forms must be substantial and unyielding built to correct dimensions and water tight to the entire satisfaction of the Engineer-in-Charge so as to preserve the concrete from damage or distortion during setting and till removal of shuttering of all visible faces and must be of steel or plywood.

All reinforcement shall be as per detailed drawings and calculations duly

approved by the S.E. The contractor shall be responsible for the accurate fixing of the reinforcement and shall not place any concrete until the reinforcement has been inspected in position and approved by the Engineer-in-Charge. The contractor shall take all precautions to prevent the displacement of reinforcement during concreting.

22. Test for Water Tightness of the structure.

The RCC structures shall be absolutely watertight. No sweating shall take place after a period of 20 days of the tank being filled upto the full supply level and kept so full during the above period. The maximum fall in the water level including that occasioned by evaporation shall not be more than 6mm after 48 hours during the winter & 12mm during the summer. All works required to fulfill the test shall be carried out by the contractor at his own risk & cost. No back filling of earth shall be allowed till testing of tank is done.

23. Erection of pumping machinery:

- For the installation of transformers, pump sets, electrical equipment, accessories, cable pipe and specials, the tenderer shall include in his tender the cost of dismantling masonry, concrete and making good the same, excavation and dewatering of trenches to lower sub soil water level.
- 2. The tenderer should submit technical literature with the offer and all documents shall be in original or attested by a Gazetted Officer.
- 3. It will be responsibility of the contractual agency for getting the electrical installations approved from Chief Electrical Inspector, Haryana, at his own cost, wherever applicable.

23.1 Safeguarding and Protection

All machinery, equipment, pipes, specials accessories, name plates, gauges etc. supplied by the contractors shall be safeguarded by him, completely erected, tested and commissioned. All openings shall be protected to prevent entry of foreign matter, by blinds/plugs. In case of loss or damage to any machinery or to any part thereof, the contractor shall bear the responsibility and loss.

The machinery shall be protected by the contractor against weather conditions and other chances of deterioration. If required by the Engineer-in-Charge, these shall be covered with tarpaulins and with tin or G.I. Sheets.

The components, parts etc. shall be thoroughly cleaned before assembly and assembled as per drawing and instructions contained in the supplier's booklets and

literature for installation or as per instructions by the Engineer-in-Charge. The contractor shall be responsible for installation of machinery as per drawings or directions of Engineer-in-Charge in case drawings are not available. In case of any variation in levels, etc. the contractor shall do the necessary rectification at his own cost.

After completion of pre-erection works to the satisfaction of the Engineer-in-Charge, the contractor shall commence the erection of machinery or foundations.

23.2 General

The contractor shall follow the manufacturer's recommendations and instructions to ensure proper erection of machinery and its operation.

The contractor shall provide all tools and gauges for erection and alignment. The contractor for the purposes of erection shall employ, at his own cost, suitable lifting shackles, cranes and skilled men, to the satisfaction of the Engineer-in-Charge. The contractor shall himself provide huts, sheds or godown for storage of his materials and labour etc.

The contractors shall be responsible for arranging and executing the work of centering, scaffolding, staffing, planting, timbering, strengthening, shoring, pumping fencing, watching and lighting at night as well as in day.

Final alignment, as specified by the manufacturer, shall be carried out after piping connections are made. Tolerances specified by the manufacturer shall be added to ensure that no stresses are induced on the pumps by piping.

The drilling of holes in the base plate for fixing motors, fixing of couplings on shafts etc. and dowelling including provision of dowel pins or similar arrangement for retaining the alignment shall be carried out by the contractor as part of the erection work.

The contractor shall fix up pressure gauge; lubricants grease cup and all other accessories as part of the unit.

23.3 Grouting Under Base Plates and Machine Foundation:

The grouting material shall solidly fill the spaces to be grouted and permanently retain its original volumes so that the base plate will be held firmly in the set position. The amount of water used in mixing shall be kept to minimum.

23.3 (1) Preparation of Surface

The top of foundation shall be cleaned free of all loose particles, oil or grease and shall be wetted thoroughly leaving no puddles prior to grouting.

All tapped pockets shall be properly vented to allow penetration of grout.

The grout shall cover all shims, which are to be retained.

23.3(2) Placement

All anchor bolt holes shall be completely filled with grout.

The finished surface shall be smooth and shall slope away from base plate (approximately at slopes of 1 in 25). After initial set is over the grout shall be kept thoroughly wetted for a minimum of 5 days. Care is also to be taken during grouting to see that the base plate level and alignment is not disturbed.

23.3.(3) Bolts & Nuts etc.

Holding down bolts of sufficient length shall be provided and fixed for setting the machinery to the foundation. All the necessary supporting joists and girders, bolts, nuts, washers and plates shall also be provided together with jointing material for making the various joints and cost shall be included in tender.

- **24.** Wherever a reference to any Indian standard appears in this schedule, it shall be taken to mean the latest version of the standard till date of the receipt of tenders with latest amendment.
- **25.** The SE/ Engineer-in-Charge shall have the option to change the location of any structures. The contractor shall have no claim whatsoever for such change.

Specifications & Technical conditions

1. Specification of Pump and pumping machinery (Centrifugal type)

1.1 **Pumps**

Horizontal spindle split casing type centrifugal pump sets complete with suitable squirrel cage induction motor of specified makes as per schedule No.III directly coupled, conforming in all respect to IS 1520-1972 and motor conforming in all respect to IS 325-1978, as amended upto date. The pump set shall be capable of pumping clear, cold, fresh water having characteristics as specified in clause 3.1 of IS 1520-1972. Each pump motor set shall be suitable for continuous rating and shall be supplied with suitable coupling, priming funnel, test cock, base plate, foundation bolts and nuts and with accessories. The make shall be Kirloskar/ Mather Platt/Worthington/Duke.

Centrifugal pumps: -

A) Specifications:

Horizontal spindle split casing type centrifugal pumps of specified approved make as per schedule No.III and conforming in all respect to IS 1520-1972 as amended upto date.

B) Material and construction:

As per clause 5.1 (Table1) of IS 1520-1972 as amended upto date. The pump is to be Contractor

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bronze fitted as per IS-318.

C) Impellers:

Double suction enclosed type hydraulically and statically balanced and made of stainless steel.

D) Nominal speed

1440 RPM

E) Pump Assembly:

Individual casing parts of pump as a whole in assembled condition to be hydrostatically tested at 1.5 times the shut off head pressure or two times the duty point pressure whichever is higher.

F) Efficiency:

The duty point should be towards left side of best efficiency point (B.E.P) but within the best efficiency zone. The efficiency should not be less than 75%.

G) <u>Guarantee and performance</u>:

As per clause 12 of IS 1520-1972 no extra credit shall be given for higher efficiency. Further pump efficiency shall be guaranteed to deliver required discharge for a range of head between (+) 10% and (-) 25% from the specified head. Shut off head of the pump should also be mentioned and maintained.

H) <u>Information to be provided by the manufacturer:</u>

The performance data as per clause 19.2.4, performance curves & original test certified and signed by the manufacturer and tenderer for performance of pump shall be provided otherwise offer will be rejected.

I) Accessories:

Each pump shall be supplied with following accessories as per clause 7.1 of IS 1520-1972.

- a) Ball type air relief valve. (Manufacturer's provision).
- b) Tyre type coupling.
- c) Pressure and vacuum gauge with siphon cock as per IS 3624.
- d) Pressure relief valve.
- e) Base plate
- f) Foundation bolts and nuts.

1.2 Electric Motor:

The pump shall be directly coupled to A.C. three phase 415 volts 50 cycles squirrel cage induction motor on common fabricated M.S.Base plate. The motor shall be capable of operation on 415(+) 6% (-) 15% voltage having synchronous speed of not more than 1500 RPM (full load slip not to exceed 4%). The motor shall be totally enclosed fan cooled and of continuous rating type. The motor shall conform to IS 325-1978. The motor shall have class F insulation according to IS 12741-1974. The H.P. of electric motor shall have a safe margin of 10% at the maximum requirement of BHP pump rating absorbed at duty point and (+) 10% and (-) 25% of head at duty point. Rise in temperature while motor is in continuous use at rated out put should not exceed as per class-F insulation (clause 12.1 of IS 325-1978). The make shall be Kirloskar/Crompton/ABB/Siemens.

1.2.1 Dimensions and output

The dimensions and outputs of motor shall comply with IS 1231-1974.

1.2.2. Winding and Insulation:

The stator winding consists of synthetic enamel covered copper wire with slot insulation complying with the requirements of IS 1271-1974.

1.2.3 Balance:

All rotors are dynamically balanced to comply with the requirement of IS 4729-1968.

1.2.4 Performance Data:

The contractor shall provide the following details in a tabular form in respect of each set alongwith the tender.

- 1. Make of pump
- 2. Model and size of pump
- 3. Duties offered LPM/Mtrs. Discharge head
- 4. Manufacturer.
- 5. Efficiency of pump at rated head
- 6. Overall efficiency of pump set at D.P.
- 7. Shut off head (mtrs.)

- 8. NPSHR
- 9. Discharge at (-) 10% head (LPM)
- 10. Efficiency at (-) 10% Head
- 11. Discharge at (+) 10% Head (LPM)
- 12. Efficiency at (+) 10 % Head
- 13. Input at D.P.(K.W.)
- 14. Input at (-) 25% Head K.W.
- 15. Input at (+) 10% Head K.W
- 16. Rated Motor output (KW)
- 17. Guarantee
- 18. Make of motor
- 19. Synchronous speed for motor (RPM)
- 20. Suitability at (+) 6% (-)15% voltage
- 21. Suitability at (+) 3% frequency.
- 22. Performance curves
- 23. Accessories.
- 24. Material and construction of pumps
 - a) casing
 - b) Impellers
 - c) Shaft
 - d) Shafts sleeves
 - e) Bearing rings

2. L.T.Panel (in pump chamber)

Wall mounting panel board of suitable size required for 4 motor vermin proof extensible type made out of 14 gauge CRCA sheet with angle frame made of 35x35x5 base frame and channel as required to establish the heavy duty starter painted with synthetic light gray enamel paint with suitable size of cable and meter holes all incoming and outgoing cable should be covered with PVC flexible pipe jointed with tape.

(Note: All the material of rating as per schedule No.1 and specifications and make as per schedule No.II & III)

3. Starter

The starter shall be fully automatic DOL starter/Star Delta starter air beak oil immersed/dry type suitable for 350/450 volts, three phase, 50 cycles AC supply conforming to IS 13947 (Part-I&IV). The starter shall be complete with.

3.1 Star Delta Starter

1.	SFU/MCCB	1 No.	L&T/Siemens, ABB
2.	Contactor	3Nos.	L&T/Siemens, ABB
3.	Over load relay	1 No.	L&T
4.	S.P.P.	1 No.	
5.	Timer (electronics)	1 No.	L&T

5. Timer (electronics) 1 No. L&T 6. Push Button 2 Nos. L&T/GE

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7.	Indication on/off	1 No.	
8.	Control fuse	1 No.	
9	Amp meter with C.T. &	selector switch	(AE,KAPPA,L&T)
10	Voltmeter with schedule	switch 1 No	(AE KAPPA I & T

3.2 DOL Starter

1.	SFU/MCCB	1No.
2.	Contactor	1No.
3.	Over Load relay	1No.
4.	S.P.P.	1No.
5.	Push Button	2 Nos
6.	Indication on	1 No.
7.	Control fuse 1No.	
8.	Amp meter with CT	1 No.

3.3 Switches/MCCB's/MCB's/Change over

Panel mounting switches/MCCCB's/MCB's suitable for 415 volts 50 cycles 3- phase AC supply with operating mechanism handle conforming to IS 13947(part-1&III) 1993/IEC 947.

SFU's

- a) Fix contact
- b) Terminal and Bake light plate for terminal
- c) Moving contact assembly.
- d) Archute and bridge
- e) H.R.C. fuses.

MCCB's/MCB's/Change over

- a) Fix contact
- b) Terminal and Bake light plate for terminal
- c) Moving contact assembly.
- d) Archute and bridge
- e) Thermal/Electronics trip system with adjustable of S/C, O/C.
- f) The operating handle shall have suitable indication of ON-OFF-Trip.

4 Voltmeter:

Volt meter shall be provided on incoming of each panel with 3 way 100 sq.mm with selector switch for each pump as per IS:1248.

5 Amp Meter:

Each pumping set shall be provided with Amp. Meter with single CTS for suitable range of motor amp. and provided one No. Amp meter on incoming of each panel with 3 way and off selector switch 100 sq.mm as per IS 1248.

6. Indication:

The three indications with control fuses in the incomer of main LT panel RYB.

7. Voltage Drops

In motor circuit the conductor shall be so chosen that the voltage at the terminals of motor when running under full load conditions is not less than 90% of the voltage at the main panel.

8. Automatic Power Factor Correction Device.

The capacitors of suitable capacity with unit of (specified in schedule no. 1) KVAR each 400/440 volts AC with copper bus bars, HRC Fuse, MPP Cap. arranged in such a way operation of APFC relay that the capacitors of appropriate capacity comes in operation automatically ON/OFF by APFC relay when motor runs and power factor goes down to improve the Power factor with specifications.

 Voltage
 : 400/440-Volt AC

 Frequency
 : 50 HZ

 No. of fuses
 : 3

 Insulation level
 : 3000 Volt AC

Equipped with Internal fuse : Provided in the form of suitably rate

tinned copper wire.

Externally : Provided with discharge resisters

Operating conditions As per IS: 3834-1986 revised.

9. <u>Electrical Wiring Including LT Cable:</u>

The work of electrical wiring and cabling shall be carried out in accordance with the Indian Electricity Rules and IS 732-1963.

The contractor shall include cost of providing and installing complete LT cable and wiring work from Meter including earthling to user end.

In Panel room the LT cable from meter to LT panel and LT panel to starter, starter to motor including cost of thimbles, lags, solder etc. for ISI marked cable of suitable size, 1100 Volts 3/3½ / Single core flexible copper cable confirming to IS 1554/ relevant IS (Part-I)-1993 in ground covered with armored cable aluminum conductor conforming to IS 1554 (Part-I)-1993 in ground covered with sand and brick/in trench/in PVC pipe/on steel cable trays. The maximum current that will flow under normal condition of service in a motor circuit shall be taken of that corresponding to the full load current of the motor, when rates in accordance with the relevant current rating ad given in IS 325-1978. The size of PVC Copper cable/wiring used shall be capable of carrying the full load current corresponding to the rating full load of the motor. It will include the cost of thimbles solder etc.

The maximum current that flow in the motor circuit shall be taken as that marked on the specification plate of the motor. The size of the cable for each circuit shall be suitable for the maximum current as mentioned in the para above.

(Note: All the material of rating as per the Schedule No. I and specifications & make of schedule No. II & III)

2. <u>C.I. Pipes and Specials</u>:

2.1 C.I. Pipes:

The specials shall be all flanged conforming to ISI 1538-1993 ISI marked class B. The velocity in the suction & delivery pipe shall not exceed 2.00 m/sec and 2.5 meters/sec. respectively. The suction and delivery pipe shall be so designed that any of the pumps can be operated at one time and delivery pipes of each pump will be as per manufacture standard.

Pipes shall be horizontally cast iron double flanged pipes class-B conforming to IS-7181-1986 as amended upto date and bearing ISI certification marks in maximum length upto 2.75 meter each or shorter lengths/pieces as per site requirements.

2.2 Sluice Valves:-

All sluice valves shall be of cast iron double flanged stainless steel/brass spindle seat conforming to IS 780-1984, IS 2906-1984 and 14846-2000 PN 1.6. The sluice valve will be provided with hand wheels upto 300mm i/d and hand operated gear machines in case of valves exceeding 300 mm i/d. The make shall be ISI marked.

2.3 Earthing:

All the electrical equipment such as LT panel, switches, starters, motors etc. shall be providing with double loop earthling with thimble connection. All lighting equipment shall be provided with single loop earthling. All connection shall be by means of soldered thimbles of approved quality. The earthling shall be done in accordance with para 7 of IS –732-1968 and IS 3043-1996 all connections of the earthling system shall be visible for periodical inspection and testing.

It is absolutely essential that the entire earthing system should be designed with regard to likely earth fault, current based on the rating of equipments installed.

- (a) Earthling with tinned copper earth plate 600mmx600mmx3mm thick including accessories and providing enclosure with cover plate having locking arrangement and watering pipe with charcoal or coke and salt for copper plate earth electrode along with earth connections from earth electrode with copper wire 32mmx6mm thick directly is ground and surface fixed with suitable copper strips of same size as required.
- **(b)** Earthing with GI earth pipe 4.5mm long and 40mm dia with masonry enclosures on the top with charcoal or coke and salt for pipe earth electrode alongwith earth connections from earth electrode with 4mm dia GI wire in 15mm dia GI pipe from earth electrode as required.

All wiring and earthing shall be as per IE/ 1996 rules and shall be got approved from the Chief Electrical Inspector of HVPN.

2.4. Steel Bar Embedded Plastics Steps

Soft orange colour foot rests having minimum 3mm thick polypropylene

copolymer plastic encapsulated on 12mm dia ribbed steel bar as per IS-1986 and having minimum cross-section of 23mmx25mm and overall minimum length of 263mm and width as 165mm with minimum 112mm space between protruded legs having 2mm tread on top surface by chequering besides necessary and adequate anchoring projection on tail length of 130mm and suitable to withstand load rest of 225 Kg with maximum 7mm deflection when tested as per IS-5455 and tested for bending, integrity of plastic test, chemical resistance test as per standard and approved by the Engineer-in-charge. The material should have manufacturer's permanent identification mark to be visible after fixing.

The plastics used in steps shall be polypropylene conforming to IS-10910-1984.

The minimum thickness of plastics shall be 8mm when measured in accordance with standard procedure.

2.5. Floating Arm

The specification for floating arm will be as approved by Engineer-in-charge.

2.6 Manhole cover

These shall be steel fibre reinforced cement concrete as approved by the Engineer-in-Charge.

2.7 CID Joints

CID joints will be ISI marked (IS 8794-1988 with latest amendments).

2.8 Rubber Gaskets and Rubber Rings

Rubber gaskets for mechanical joints and push on joints for use with CI pipes and fittings shall be ISI marked (IS: 12820-1989) with latest amendments. The rubber rings shall be ISI marked (IS 5382-1985) with latest amendments.

2.9 Pig lead

Pig lead shall conform to IS: 27 OF 1977 with latest amendments.

2.10 Nut Bolts

Nut bolts shall be ISI marked (IS: 3138 of 1966) with latest amendments.

2.11 Main switch / change over/ volt meter/ Amp. Meter

These should be of Havell/ Kay/ L&T make.

2.12 Copper Wire (flexible multi strand)

Make Finolex, Havell/ National/ Plaza.

2.13 Capacitors (oil immersed)

Make L&T, GE, Siemens.

