## **Municipal Corporation Gurgaon**



#### TENDER

and

## CONTRACT DOCUMENT

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

Name of Work: Shifting of Tube well structure falling in alignment of SPR from Sohna road to NH-8 at V Begampur Khatola RD 3720.(Re- invited)

App. Cost Rs. 07.87 lacs.

Name of Agency	:
Agreement No. :	•••••••••••••
-Sd-	
Signature of Dy. Supdt.	Tender Notice No

#### **PRESS NOTICE**

Municipal	Corporation Gurgaon
Notic	e Inviting Tender

No		
Dated:		

1. Online bids are hereby invited on behalf of Commissioner MCG for the works mentioned below:-

Name of Work:- Shifting of Tube well structure falling in alignment of SPR from Sohna road to NH-8 at Vill. Begampur Khatola RD 3720.(Re- invited)

App. Cost Rs. 07.87 lacs.

Sr. No. of	Estimated	Earnest	Tender		
work	Cost	Money	Document	During da	te & Time
	Rs. in	in Rs.	Fee	_	
	Lacs		in Rs.	Downloading	Online Bid
				of Tender	preparation
				Document	and hash
				alongwith	submission
				Tender fees	
1	07.87	15800	1000/-	24.12.2011 up	26.12.2011 up
				to 17:00 PM	to 17:00 PM

- 1. Tender will be opened on dated 15/12/2011, from 10:00 AM to 5:00 PM
- 2. The detail tender notice can be seen on website: <a href="http://mcg.etenders.in">http://mcg.etenders.in</a>
- 3. Possession of Digital Signature Certificate (DSC) and registration of the contractors on the portal i.e. <a href="http://mcg.etenders.in">http://mcg.etenders.in</a> is a prerequisite for etendering. Kindly contact o/o Nextenders (India) Pvt. Ltd., O/O

- Additional Chief Engineer, HUDA, Sector 40, M- Block South City -I, Gurgaon. Contact persons: Sh. Rajit Garg 09650482332
- **4.** For any other queries, please contact Executive Engineer, Div. No. 5, Municipal Corporation Gurgaon Tel (O) 0124- 2380899 & (M) 8826794067 Address:- Near HUDA Community Centre, Sector 39, Gurgaon. For further details and e-tendering schedule, visit website <a href="http://mcg.etenders.in">http://mcg.etenders.in</a>

## For & on behalf of Commissioner MCG

Sd/-

Executive Engineer Division No. 5, Municipal Coporation, Gurgaon

#### MUNICIPAL CORPORATION GURGAON

#### **NOTICE INVITING TENDER**

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

Name of Work: Shifting of Tube well structure falling in alignment of SPR from Sohna road to NH-8 at Vill. Begampur Khatola RD 3720.(Re- invited)

App. Cost Rs. 07.87 lacs.

Sr. No. of	Estimated	Earnest	Tender				
work	Cost	Money	Document	During date & Time			
	Rs. in	Rs.	Fee				
	Lacs		in Rs.				
				Downloading	Online Bid		
				of Tender	preparation		
				Document &	and hash		
				Payment of	submission		
				Tender			
				Document			
				fees			
1	07.87	15800	1000/-	24.12.2011 up	26.12.2011 up		
				to 17:00 PM	to 17:00 PM		

1. Tender documents can be seen on website: <a href="http://mcg.gov.in">http://mcg.etenders.in</a> by the Firms / Individual registered on 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 Digital Signature Certificate (DSC) at the earliest. For obtaining Digital Certificate, the Bidders should follow point No. 3 under "Annexure-A - Conditions of e-tendering".

## 3. Key Dates

Sr. No.	MCG State	Contractor Stage	Start Date and Time	Expiry Date and Time
1	Release of Tender document		19.12.2011 09:00	22.12.2011 17:00
2	-	Downloading of Tender Documents alongwith Tender fees	23.12.2011 09:00	24.12.2011 17.00
3	-	Online Bid Preparation & Hash Submission	25.12.2011 09:00	26.12.2011 17.00
4	Technical & Financial Lock	-	27.12.2011 09:00	27.12.2011 17:00
5	-	Re-Encryption of Online Bids	28.12.2011 09:00	28.12.2011 17:00
6	-	Manual Submission of EMD & Additional Documents	29.12.2011 13:01	29.12.2011 17:00
7	Open EMD & Technical/PQ Bid	-	30.12.2011 09:00	30.12.2011 17:00
8	Eligibility criteria evaluation	-	30.12.2011 09:00	30.12.2011 17:00
9	Open Financial/Price- Bid	-	30.12.2011 09:00	30.12.2011 17:00

- 4. The Bidders can download the tender documents from the Portal: http://mcg.etenders.in. Tender Documents Fees has to be paid online through payment gateway during the "Downloading of Tender Document & Payment of Tender Document fees" stage and Earnest Money Deposit has to be submitted through Demand Draft in the name of Commissioner, Municipal Corporation Gurgaon. The particulars are to be given online at the etendering website 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 of time of transaction
- f) Mode of payment is through RTGS, Demand Draft, Net banking, Credit card etc.
- g) 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 the details of the EMD are required to be filled at the time of Bid Preparation and Hash Submission stage, the Bidders are required to keep the EMD details ready beforehand.

- 5. The tender shall be submitted by the bidder in the following three separate envelops online:
  - 1. Earnest Money and all the documents in support of eligibility criteria
  - 2. N.I.T. and Technical Bid
  - 3. Price Bid

- Envelope 'ED'
- Envelope 'T I'
- Envelope 'C I'

Note:- Online Bidders shall submit the EMD. 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 the EMD is to be mentioned online.

The envelopes 'ED' & 'TI' shall be kept in a big outer envelop, which shall also be sealed. In the first instance, the Envelop - 'ED' of all the Bidders containing the Earnest Money and documents supporting eligibility criteria shall be opened online. If the Earnest Money and eligibility of bidder is found proper, the Envelop 'TI' containing Technical Bid shall be opened in the presence of such bidders who either themselves or through their representatives choose to be present. The Technical and 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 and eligibility criteria Envelop

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

## Envelope 'TI' - Technical Bid Envelope

Online Technical Envelope - All the information and scanned copies of the Documents / Certificates as required to be submitted as per the Tender. Also, all such documents, if any, that cannot be submitted online i.e. all the Information and Documents / Certificates as required to be submitted in physical technical envelope as per the Tender.

## Envelope 'CI' - Price Bid Envelope

To be submitted mandatory online- "Information related to Price Bid of the Tender". The Envelopes "ED" & "TI" shall be placed in another envelop of bigger size clearly marking the name of agency & name of work. In case, the Bidders have submitted all the information and documents/ certificates required as a part of Technical Bid online, physical Envelope "TI" shall be submitted clearly marking "Blank".

The bidder can submit their tender documents as per the dates mentioned in the schedule above.

#### **CONDITONS:-**

- (1) Application for tender documents must accompany with an attested copy of registration certificate of the contractor at the time of submission of tender.
- (2) Tender of societies shall be accepted on production of resolution duly attested by the registrar of society or authorized person.
- (3) The execution of entire work shall be monitored by a citizen supervisory committee comprising persons who are stake holder in the work. The contractor shall be bound to keep the committee apprised of various important phases of the work right from the beginning till the end. The contractor shall also give due consideration to the suggestion of this committee with regard to the quality of work from time to time. In case of contractor finds such suggestion to be unacceptable, the matter shall be brought in the notice of Engineer-in-charge.
- (4) The tender without earnest money will not be opened.
- (5) The jurisdiction of court will be at Gurgaon.
- (6) The tender of the bidder who does not satisfy the eligibility criteria in the bid documents is liable to be rejected summarily without assigning any reason and no claim whatsoever on this account will be considered.
- (7) The bid for the work shall remain open for acceptance during the bid validity period to be reckoned from the date of "Online Bid preparation and Hash submission". If any bidder withdraws his bid before the said period, any modifications in the terms and conditions of the bid, the said earnest money shall stand forfeited. Bids would require to be valid for 3 months from the date of closing of online "Bid preparation and Hash submission stage".
- (8) Tender form for Bituminous road work will be issued only to:-

(i) Such road work contractual agencies that produce requisite documents to the satisfaction of Engineer-in Charge that they have already installed HMP or own spare Hot Mix plant along with requisite machinery for transportation of mix material is lying with paver & compaction with road rollers as per specifications. Such existing or to be installed Hot Mix Plant will be located within 30Km. distance from the site of work(s) to keep the temperature of mix material to the required level.

#### OR

(ii) Such contractual agencies who produce the requisite documentary proof to the satisfaction of Engineer-in Charge for obtaining the H.M.P. & other machinery on lease as specified in above sub-Para (i) from an authorized and established leasing company/agency already engaged in this business.

For and On Behalf of Commissioner MCG

-Sd-Executive Engineer Division No. 5, Municipal Corporation, Gurgaon Endorsement No.

Dated

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

- 1. Mayor, Municipal Corporation, Gurgaon
- 2. Commissioner, Municipal Corporation Gurgaon.
- 3. Deputy Commissioner, Gurgaon.
- 4. Chief Engineer, Municipal Corporation Gurgaon.
- 5. Superintending Engineer, Municipal Corporation Gurgaon.
- 6. Superintending Engineer, P.W.D. (B&R) Circle, Gurgaon.
- 7. Superintending Engineer, Public Health Engineering Circle, Gurgaon.
- 8. Superintending Engineer, Circle No. 1 & 2, HUDA, Gurgaon.
- 9. GM, BSNL Gurgaon for taking necessary steps during execution of works.
- 10. Chief Account Officer, Municipal Corporation Gurgaon.
- 11. Executive Engineer III/ IV/ V/ VI, VII Municipal Corporation Gurgaon.
- 12. Executive Engineer, Marketing Board, Gurgaon.
- 13. Executive Engineer, Public Health Engineering Division, Gurgaon.
- 14. Executive Engineer, PWD B&R Prov. Division No. 1 & 2, Gurgaon.
- 15. Assistant Engineer- 3, 4, 8, Horiculture Municipal Corporation Gurgaon.
- 16. Dy. Director (Audit), Municipal Corporation Gurgaon.
- 17. Assistant Register, Cooperative Societies, Gurgaon.
- 18. Manager, Gurgaon Distt. Co-op. L/C Federation Ltd. 209/3 Gopal Nagar, Gurgaon.
- 19. Notice Board, Municipal Corporation Gurgaon.
- 20. CFC, Municipal Corporation Gurgaon for publication on net.
- 21. Various Contractors.

For and On Behalf of Commissioner MCG

-Sd-Executive Engineer MCG Division No. 5, Gurgaon

#### **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 <a href="http://mcg.etenders.in">http://mcg.etenders.in</a> For more details, please see the information in Registration info link on the home page.

## 3. Obtaining a Digital Certificate:

- 3.1 The Bids submitted online should be encrypted and signed 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 on given below which is:-
- 1. TATA Consultancy Services 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 Info-tech 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. Nextenders (India) Pvt. Ltd.

O/O Additional Chief Engineer, HUDA, Sector 40, M- Block South City -I, Gurgaon.

Contact persons: Sh. Rajit Garg - 09650482332

- 2. Nextenders (India) Pvt. Ltd. YUCHIT, Juhu Tara Road, Mumbai-400049 <u>Email-Chandigarh@nextenders.com</u>
- 3. Nextenders (India) Pvt. Ltd. O/o HSRDC, Bays No.13-14, Sec-2, Panchkula-134151 Contact Person: Manmit - 09815034028
- 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 have back up of certificate and keep the copies at safe place under proper security to be used in case of emergencies.
- 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 Municipal Corporation Gurgaon, 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 applies for a fresh digital certificate and issues 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://mcg.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 MCGD website <a href="http://mcg.etenders.in">http://mcg.etenders.in</a>. 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 <a href="http://mcg.etenders.in">http://mcg.etenders.in</a>

## 7. Submission of Earnest Money Deposit:

- **7.1** The EMD Payment can be made by eligible contractors through Approved Traditional Financial Instruments or through RTGS/Net Banking transaction .
- **7.2** Contractors have to submit the EMD either physically in a sealed physical envelope which should reach the office of concerned Executive Engineer as mentioned in the Tender Notice or make EMD payment through RTGS/Net Banking transaction.

#### 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.

#### 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://mcg.etenders.in

## 10. Submission of Bid Seal (Hash) of online Bids:

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 website 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 MCG 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.

## 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.

- 2. Technical Bid Documents except EMD that cannot be submitted online, if any should be put in separate sealed envelopes and these sealed envelopes together with the documents listed below should be sealed in another cover and delivered to this office before the date and time mentioned in the Tender Notice.
  - i. A list of all documents accompanying the sealed envelopes 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.
  - iii. Documents in respect of payment of earnest money.
- 3. Tender must strictly abide by the stipulations set forth in notice inviting tender & while tendering for the work, the bidder shall adopt only the three envelope system.
- 4. The third envelop 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.
- 7. The tenders of the bidders who does not satisfy the qualification in the bid documents are liability to be rejected summarily without assigning any reason and no claim what so ever on their account will be considered.

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 Municipal Corporation Gurgaon, Haryana on the website http://mcg.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.

#### MUNICIPAL CORPORATION GURGAON

#### **NOTICE INVITING TENDER**

1. For and behalf of the Commissioner MCG, 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 Municipal Corporation Gurgaon duly renewed upto date (on which tenders are to be opened): -

Name of Work: Shifting of Tube well structure falling in alignment of SPR from Sohna road to NH-8 at Vill. Begampur Khatola RD 3720.(Re- invited)

App. Cost Rs. 07.87 lacs.

PARTICULARS OF THE OFFICER INVITING THE TENDERS

Executive Engineer
Division No.5,
Municipal Corporation
Gurgaon

Hereinafter referred to as "Executive Engineer"

#### **GENERAL NOTES (A)**

- 1. This contract schedule of rates is an extract of the relevant items from the Haryana PWD schedule of rates, 1988 and is to be read with another schedule attached hereto namely as the "SCHEDULE OF CEILING PREMIA". For the purpose of cross reference against each items the chapter no and the item no has been indicated.
- 2. The above rates are for the complete items including cost of all materials, labour, tools and plants etc. unless otherwise specified.
- 3. All clauses and notes given in the Haryana PWD schedule of rates 1988 with upto the date of tender shall be applicable on all above items where ever necessary.
- 4. The description rates, units etc. of the above items shall be corrected as per Haryana PWD schedule of rates, 1988 in case of any error or omission.
- 5. Nothing shall be paid for unforeseen delays on account of non-availability of any kind of material, drawing or design.
- 6. Nothing shall be paid for the damage done by rain, floor or any other act of God.
- 7. The whole work shall be carried out strictly in accordance with the Haryana PWD specifications 1990 edition with upto date correction slips.
- 8. In case contract schedule of rates. Only essential portion or items has been written it will deem to cover the entire items fully described in Haryana PWD schedule of rates subject to the foot notes and notes given in the Haryana PWD schedule of rates 1988.
- 9. The work shall be considered to be situated within the Municipal limits for all purposes.
- 10. No claims will be entertained from the contractor in case any mistake in description, rates or units accrue in any of the items taken in the schedule, while composing this schedule or on account of typing or comparison or over sighting. If there is any mistake, the same shall be rectifiable at any stage as per Haryana PWD schedule or rates, 1988 by the Engineer-in-charge along with the amendments of the same received from time to time.
- 11. Approximate quantities have been given in the contract schedule of rates and these can vary at the time of execution of the work. The payment will however be made according to the actual work done by the contractor and accepted by the Department.
- 12. The amount of work can be increased or decreased. The contractor will have no claims on this account.
- 13. The items given in the contract schedule of rates can be changed by the Engineer-in-charge and its execution will be handing over the contractor.
- 14. No claim on account of fluctuated in prices due to any reason what so ever will be considered.
- 15. The list of ceiling premia admissible on various items contained in various chapter of Haryana PWD schedule of rates 1988 is attached with the notice inviting tender and shall from the part and parallel of this contract schedule of rates. All those items which do not fall within Haryana PWD schedule of rates, 1988 the ceiling premia shall be "ZERO".

- 16. Payment only made to the contractor for the work actual done at site and accepted by the department.
- 17. All the items in the contract schedule of rates are subject to the foot notes as given in the Haryana PWD schedule of rates, 1988 regarding these items.
- 18. The department reserve the option to take away any item of work or any part thereof at any item during the currency of contractor and re-allot to another contractor with due notice to the contractor without liability of compensation.
- 19. The item of HSR 1988 is described very briefly but the description would mean the complete description in aforesaid PWD schedule of rates, 1988 regarding these items with upto date amendments.
- 20. All the pages of the tender for must be signed by the tenderer before submitting the tender failing which the tender shall be treated as invalid.
- 21. The validity of the tender shall be considered as three months and no lower limit even if quoted by the contractor shall be considered.

- 22. In the DNIT CSR means CONTRACT SCHEDULE OF RATES.
- 23. If water connection is given to the contractor by the department ½% (Half percent) charges shall be deducted from the bill of the work done. However, material required for water connection will be arranged by the contractor.
- 24. The work will be carried out according to IRC, MORT & H / PWD specification latest edition which will form a part and parcel of this contract schedule of rates.
- 25. Nothing extra shall be paid for any type of jungle clearance which the tenderer may have to carry out.
- 26. If any damaged is done by the contractor to any existing work during the coarse of excavation of the work. This shall have to be made good by him at his own cost.
- 27. The shall take all the precaution to avoid the accidents by providing and maintaining necessary caution boards, day and night speed limit breakers, red flags and red light and providing barriers as necessary at either end of the location. All these arrangements will be considered as incidental to the work and contractor responsibility and nothing shall be payable to him in this respects.
- 28. The contractor shall make his own arrangement for the electric connection of required and make necessary payment directly to the department concerned.
- 29. The work will be open to third party inspection arranged by the department and contractor will have no claims in this regard. The charges for third party inspection will be born by the department.
- 30. Any item of work not provided in the contract schedule of rates but require to be executed, will be at the Haryana PWD schedule of rates, 1988 together with the ceiling premium exhibited in the NIT for various chapters where the item exists in the Haryana PWD schedule of rates 1988 subject to premium or discount tendered by the contractor. In case of non scheduled item, this will be governed by clause 12 of the contract agreement.
- 31. MCG has right to negotiate the rates to explore lower rates if required.

#### **TECHNICAL CONDITIONS (B)**

- 1. The ISI marked OPC 43 Grade; Cement will be used and arranged by the Contractor/ Agency at his own cost.
- 2. The work will be open for third party inspection for quantity and quality as per prescribed relevant. IS specification as directed by the Engineer in charge.
- 3. The design mix to be used will be going approved by the agency from Engineer-in-charge at least 15 day in advance. The samples will be given by the agency free of cost.
- 4. Contractor shall provide suitable measuring arrangement and leveling instruments latest quality approved by Engineer-in-charge at the site of work.
- 5. No extra payment on account of quality control measures shall be paid to the contractor.
- 6. PERIOD OF DEFECTS LIABILITY. The contractor shall be responsible to make good and defect which may develop or may be noticed during period of one year from the certified date of completion and which is attributable to the contractor. All notices of such defects shall be given to the contractor promptly. In case the contractor fails to make good the defects, the Engineer-in –Charge may employ other means to make good such defects and all expenses consequent and incidental there to shall be borne by the contractor.
- 7. The contractor shall not occupy or obstruct by his operations more than ½ of the width of any road or street. However, in special conditions, the contractor shall obtain the consent of the Engineer-in-charge in writing before closing any road for vehicular traffic and footpath shall be kept clear at all times. The contractor shall make all the precaution to avoid any accidents and for proper guidance of the traffic bye providing necessary barriers, reflective cautionary sign/ signal, speed limit boards, red and green flags, electric light focus type at night, with sufficient number of chowkidars and other measures while work is in progress or blocking the road wherever otherwise necessary. The material and the machinery shall be stocked/ placed at the site of work in such a way that there will be no obstruction to traffic and inconvenience to public. No claim shall be entertained on account of such faulty arrangement made by the contractor. The contractor shall be fully responsible for all accidents caused by the negligence of such precaution. In case the contractor fails to comply with the afore said arrangements the same shall be made by the Engineer-in-charge at the risk and cost of the contractor.
- 8. If directed by the Engineer-in-charge in writing the work shall be done during night time for which nothing extra shall be paid to the contractor.
- 9. Before tendering the tender shall inspect the site of work and shall fully acquaint/ satisfy himself about the condition with regard to site, nature of soil, availability of material, suitable location for construction of god owns stores and labour huts, the extent of leads and lifts is involved in the work (over the entire duration of contract) including local required for a satisfactory execution of work. This rate should take into consideration all such factors and contingencies. No claim what so ever shall be entertained by the department on this account.
- 10. Only actual quantities of work completed and accepted by the Engineer-in-charge shall be paid for if any damage is done by the contractor to any existing work during the course of execution of work, this shall have to be made good by him at his own cost.

- 11. At least one authorized representative of the contractor should always be available at site of work to take instruction from departmental officers and ensure proper execution of work should be done in the absence of the contractor.
- 12. The contactor shall be required to provide all such materials/ equipment's at site to conduct field tests and to ensure that the quality of aggregate shall be according to the prescribed specification and no payment for material required for samples for such tests shall be made to him. In case the material is not found up to mark, the same will be rejected.
- 13. For cement, bitumen, steel and similar other material there essential tests are to be carried out at the manufacturer's plants or at laboratories other then the site laboratory, the cost of samples, testing and furnishing of test certificates to the Engineer.
- 14. Nothing shall be paid for making and maintenance of service road required for the transportation of the material.

- 15. Irrespective of what is stated in para 6 of the preface of Hr. PWD/ schedules of rates 1988 general rules no carriage of cement, steel and bricks aggregate bitumen or any other type of material shall be admissible irrespective of lead involved.
- 16. No payment will be made to the contractor for damage caused by the rains or other natural claimants during the execution of the work and no claim on this account will be entertained.
- 17. This security shall be refunded after 3(three) months of completion of work but the contractor/ Agency shall submit deposit at call in the shape of bank Guarantee of equal amount for balance 09(nine) months in favour of Commissioner Municipal Corporation Gurgaon before release of security.
- 18. The aggregate & fine aggregate used shall be as per PWD/ Most specification and the water shall be as per IS 456 2000.
- 19. All aggregates including water etc. and furnished products in RMC will be tested as per relevant ISI standard.
- 20. The Fly ash may be used in mix designed for M-40 grade to max extent of 10% and design be got approved by the NCCB/CRRI with minimum cement content 420 Kg of 43 grade per cubic meter.

#### **SPECIAL CONDITIONS (C)**

- 1. Wherever in the description of the item in the bill of the quantities the specification clause No. of MORT&H is missing, the same shall be carried out strictly in accordance with the MORT&H (Road Wing) and latest revision/ amendment as applicable.
- 2. The contractor shall clear the site of work simultaneously as the work proceeds failing which the same shall be got cleared by the Engineer-in-charge at the risk and cost of the contractor.
- 3. Collection of material at site for the proper execution of work as per specification shall include all leads and lifts. The percentage rates quoted by the contractor shall hold good irrespective of the quarry/ sources form which materials are brought so long it conform to the specification. Clause/ change of any quarry/ source shall not entitle the contractor to claim any revision in rates.
- 4. The contractor shall store all materials in proper manner so as to avoid contamination, deterioration and any accidents. He shall not store or keep any materials are to be stored shall be subject to the approval of the Engineer-in-charge. At the places where the materials are stored by the contractor he will make his own arrangements to clear the place within such time as may be instructed by the Engineer-in-charge or the same shall be got clear by the Engineer-in-charge at the risk and cost of the contractor.
- 5. No compensation for any damage caused to the work/ materials by him, folds or other natural calamities shall be paid to the contactor. The contractor shall make good all such damages at his own cost as per directions of the Engineer-in-charge.
- 6. The contractor shall obtain prior approval of the Engineer-in-charge before installation of water and power system, electrical and mechanical equipment and plants and all temporary construction etc. at site of work. On completion of work, the contractor be made good the ground at his own cost as per directions of the Engineer-in-charge, failing which the same shall be made good by the Engineer-in-charge at the risk and cost of the contractor.
- 7. The contractor shall make arrangement at his own cost for at least two numbers of modern leveling instruments (wild type) for the purpose of carrying leveling operation failing which the same shall be arranged by the Engineer-in-charge at his risk and cost.
- 8. No work should be done in the absence of the contractor on his authorized representatives. A technician and surveyor will be provided/ made available for all working time by the contractor for carrying out quality control tests and surveying. Nothing extra will be paid on this account.
- 9. Nothing will be paid unforeseen delays on account of non-availability of any kind of material or drawing and design.
- 10. The contractor will be responsible for setting cut the work establishing benchmark, center line etc and will carry out all such works at his own cost.
- 11. Before start of the work, the contractor shall submit the program of execution of work, get it approved from Engineer-in-charge and strictly adhere to the same for timely completion of the project.
- 12. The contractor shall have to make approached to the site, if so required and keep them in good condition for transportation of labour and materials a well as inspection of work by Engineer-in-charge. Nothing extra shall be paid on this account.

- 13. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued to him by the department if any or his own material.
- 14. The rate quoted by the agency/ contractor shall including the entire cost of royalty, Municipal tax, direct or indirect including all loading, unloading, carriage on Kacha/ Pacca bed or road and stacking including all labour for supply of material at the destination and nothing extra shall be paid. The contractor shall quote his accordingly.
- 15. The contractor will arrange and use its own all type of machinery and T&P incidental to all operation for the work. The rates to be quoted should be inclusive of the same.
- 16. The stacking will be done at hot mix plant site for various type of material in the sequence as approved by the Engineer-in-charge, which will have to be maintained.

- 17. The contractor shall remove all bituminous on kerbs and channels and all heaps of wasted mix from gully grating, bell mount and other installation at the end of the day work, failing which the same shall be done at his risk and cost.
- 18. In case of important roads where the intensity of traffic is high, the contractor shall be constructed by the Engineer-in-charge, restrict the work to non peak period as determined by the Engineer-in-charge. No claim/ compensation on account of the same shall be entertained.
- 19. Collection of material should be so planned that it is commensurate with physical progress.
- 20. The quality control for road work and materials will be exercised as per section 900 of MORTH specification latest revision/ amendment and for determining the quality of bitumen used by extraction method as per procedure laid for doing such tests by IRC. The frequency of sampling will be exercised as per clause of MORT&H Specifications.
- 21. At the time of start of work, the contractor shall get a sample work done in presence of Engineer-in-charge who shall fix up the degree of compaction/consolidation required for a particular item of work and conduct suitable tests at regular intervals to determine for the work done approaches the desired limit. In case tests reveal any deficiency, the contractor shall made good the same without extra payment or work will be rejected if not according to required specification.
- 22. The contractor shall progress on different parts simultaneously to ensure completion of the road so that minimum breakage and repairs are involved.
- 23. To arrive at the desired grading of materials, the exact quantities of material of different gauges shall be determined and stacked on the basis of laboratory tests from time to time. The extra payment on this account worked not be admissible.
- 24. To ensure quality of intermediate traction test check may be carried out and sample taken from materials. In case that is not found according to specification the work may be rejected. However, the engineer-in-charge if considered it expedient and in the interest of work, he may ask the contractor to supply the missing fraction up to quantity as determined by him separately, free of cost.
- 25. Weather and seasonal limitation: The work of laying shall not be taken up during rainy or foggy weather or when base course is damp or wet or during dust storm or when atmospheric temperature is 10 degree C or less at site of work of particular reach.
- 26. The rate quoted should include hire charges of land or purchase of land for installation of Hot Mix Plant etc.

Executive Engineer-V

- 27. Samples will also be got tested from CRRI/ Shree Ram Test House/ IIT's or any other reputed test house & testing laboratory. Samples will be given by the agency free of cost and testing charges will be borne by the contractual agency.
- 28. Before start of the work contractor will get his machinery inspected and approved from the Engineer-in-charge of the work.

#### **QUALITY CONTROL (D)**

- 1. a) Identify defects: The Engineers-in-charge or his representative shall check the contractor's any work and notify the contractor any defects that are found. Such checking shall not relieve the contractor's responsibility/ responsibilities. The engineer-in-charge may instruct the contractor to search for defect and to uncover any work that the engineer-in-charge or his authorized representative considers may have a defect.
  - b) Correction of defects: The Engineers-in-charge shall give notice to the contractor of any defects before the end of defects liability period/maintenance period which will be one year after completion. The defect liability period/maintenance shall be extended as long as defects remain to be corrected. Every time notice of a defect is given, the contractor shall correct the notified defect within the limit of time specified by the Engineer-in-Charge's notice. If the contractor has not corrected a defect within the time specified in Engineer-in-charge's notice, the Engineer-in-charge will assess the cost of having the defect corrected and the contractor will pay the amount.
  - c) The contractor shall have to provide a field laboratory fully equipped at work site and at hot mix plant for conducting all the relevant tests mentioned in the MORTH&H specification subject to the approval of the Engineer-in-charge or his representative. The record of such tests is to be maintained in proper register duly signed by the contractor or his representative, which will become the property of Deptt. The contractor will bear all the running expenses for conducting such tests. All the tests will be carried in the presence of Engineer-in-charge or his authorized representative. All the entries are to be signed by the contractor and such authorized representative of Engineer-in-charge.
- 2. The quality control tests will be got done by department and the material for such tests will be supplied by the contractor free of cost. In case the material is not found upto the requirement, the same will be rejected. Cost of such tests will also be biome by contractual agency.
- 3. Various quality control operations will be maintained as per clause No. 901, 902, and 903 of MORT&H (Road wing) specification (IVth revision) of 2001 / latest edition.
- 4. Contractor shall provide suitable measuring arrangement and leveling instruments of latest quality approved by Engineer-in-charge at the site of work.
- 5. No extra payment on account of quality control measures shall be paid to the contractor.
- 6. The Engineer-in-charge at his discretion can get any type and nos. of tests carried out from any other approved laboratory for his satisfaction for which all the expenses incurred would be biome by the contractual agency. The results so obtained from the laboratory would be acceptable/ binding to the agency.
- 7. The riding quality of each and every reach will be strictly as per specifications.
- 8. Work will be also be opened to third party inspection also shall be stocked/ placed at the site of work in such a way that there will be no obstruction to traffic and inconvenience to public. No claim shall be entertained on account of such faulty arrangement made by the contractor. The contractor shall be fully responsible for all accidents caused by the negligence of such precaution. In case the contractor fails to comply with the aforesaid arrangements the same shall be made by the Engineer-in-charge at the risk and cost of the contractor.

## **DNIT**

Shifting of Tube well structure falling in alignment of SPR from Sohna road to NH-8 at Vill. Begampur Khatola RD 3720.

App Cost Rs.

Lacs

## Sub Head No. 1

## **Drilling of Tubewell**

SN	Description		Qty	Unit	Tentative	Amount
1	Drilling of 685.80mm dia bore by hydraulic rotary drilling				Rate	(In Rs.)
1	(reverse circulation method) according to ISI specification					
	No.2800-1991 (Part-I) as amended upto date and modified					
	to extent of the specification attached with this schedule of					
	items of work in all kinds of soils and boulders upto 125mm					
	dia except rocky strata including the cost of all consumable					
	stores, fuel, oil, soil stabilizing material and transportation					
	of rig and other accessories to the site proposed bore and					
	back (including cost of lowering of all sizes of casing pipe while boring and extracting the same against earth frictions					
	etc.) compete to the satisfaction of the Engineer-in-Charge.					
	0 to 190mtr. Depth 1 x 190	190	190	Per Mtr.	Rate to	be quoted by the agency
	0 to 150htt. Depth 1 x 150	170	170	Ter wit.	Rate to	be quoted by the agency
2	Supplying and lowering 219.10mm outer dia ERW steel					
	pipes as per IS 4270-1992 as amended pipe in 4 to 7					
	meters random length with 88.90mm of threaded ends					
	(8 threads to an inch or 25.40mm) manufactured out of					
	6.40mm thick M.S. plates with required number of M.S.					
	socket 152.40mm length with inside thread to match the					
	pipe threads and made out of M.S. plate in to borehole in					
	vertical position including cost of all scaffolding, derricks,					
	Jim, poles, tools and plants, ropes, gays M.S. clamp					
	embedded in foundation etc. complete in all respects to the					
	satisfaction of the Engineer-in charge of the work including					
	cost of all cutting, threading of pipe, welding where required					
	and all sockets.					

	150 Mtr. x 1 Nos. x =	150 Mtr.		150	Per Mtr.	Rate to be quoted by the agency
	100 1111. X 11105. X	11111.		100	T CI IVICI.	Take to be quoted by the agency
3	Supplying for lowering 200mm i/d all welded low carbon					
3	galvanized steel (LCG) cage type V-wire wound screen					
	, , , , , ,					
	confirming to ISI 8110-2000, IS 4270-1992 and composition					
	of material as per ISI-1012 of outer dia 221 mm equivalent					
	thickness 8.00 mm, tensile load 14000 Kg., minimum and ring thickness 8mm, slot opening 0.75mm, open area 25%					
	Nos					
	35 Mtr. x 1 . =	35	Mtr.	35	Per Mtr.	Rate to be quoted by the agency
4	Providing and fixing in position suitable bail plug hook of					
	219.10mm as per IS 226/1975 as amended upto date,					
	including the cost of M.S. screwed sockets etc. complete					
	in all respects to the entire satisfaction of the Engineer-in-					
	charge of the work.					
	No		Nos			
	1 . 1 Nos. x	=	1 .	1	Each	Rate to be quoted by the agency
5	Supplying & packing graded gravel of size as per ISI 4097/					
	1988, as amended upto date and specification attached					
	with this schedule of item of work. The gravel should be free					
	from dust, dirt or vegetable matters. Packing to be done					
	from the housing pipe to the bottom of liner all around on the					
	bore and will be placed other liner and housing pipes have					
	been lowered and suitably clamped. Thickness and size of					
	the gravel packing will be as directed by the Engineer-in-					
	charge strictly as per relevant ISI.					
	Nos		Cu			
	66 Cum. x 1 .	66	m	66	Cum	Rate to be quoted by the agency
6	Supplying and fixing well threaded M.S. cap for 273.10mm					
	outer dia M.S. pipe as per ISI 226/1975 as amended upto					
	date to the satisfaction of the Engineer-					
	in-charge.					
	No 1 . X 1 Nos.	=	1	1	Each	Rate to be quoted by the agency
7	Supplying as per IS: 226/1975 as amended upto date deodar		-	1	Lucii	Take to be quoted by the agency
,	wooden box made of 20mm thick wood size 60cm x 30cm x					

	75cm with lid and locking arrangement etc. for preserving the					
	strate samples received from the bore as and when desired					
	by the Engineer-in-Charge.					
	No 1 . X 1 Nos.	=	1	1	Each	Rate to be quoted by the agency
8	Supplying and fixing 219.10 mm M.S. clamp as per IS: 226/1975 as amended upto date for supporting the housing pipe supported on two girders not less than 100mm x 150mm and two meters long each embedded in suitable foundation as approved by the Engineer-in-Charge.					
	No 1 . X 2 Nos.	=	2	2	Each	Rate to be quoted by the agency
9 a	Development of T/well according to clause 9.3 of IS: 2800-1991 (Part-I) as amended upto date and specifications attached & as directed by the Engineer-in-charge of the work including the cost of all consumable stroes, fuel, oil, compressors, pumps and machinery etc. as required of this work. When developed by compressor of the 450/600 CFM,250 PSI or suitable rating					
	45 Hours x 1 Nos. =	45 Hours		45	Per Hours.	Rate to be quoted by the agency
10	Resistivity Survey 1	No.		1	Each	Rate to be quoted by the agency
•	Total					0

# (Pumping Machinery & Electric Control Panel)

## Sub Head No. 2

	Description	Qty	Unit	Tentativ e Rate	Amount (In Rs.)
1	Supplying, erection testing and commissioning of submersible				
	pumping sets as per BIS Specification No.8034-1989 (as				
	amended upto date for pumps) and IS. 9283-1979 (as amended				
	upto date for motor) the pump motor sets should be capable of				
	pumping clear fresh cold water having Characteristics as				

i			 i	1		1
	specified in Clause-4 of IS. 8034/1989 and Clause 4.1 of IS					
	9283/1979. Each pump motor set shall be supplied with joint					
	free 50 M. double length PVC. Insulated and PVC. Sheathed					
	flexible 6 mm2 type submersible Cable of finolex make and					
	junction box for jointing of submersible Cable and Submersible					
	pumping set.					
		1				
	i)250 LPM/125 M.Head -For T/Well =	Nos.	1	Each	Rate to	be quoted by the agency
2	Supplying erection, testing of electric control panel board for					
	T/wells in pump chamber consisting of MS sheet of thickness					
	14 gauge duly painted box type floor mounted made of Angle					
	frame containing 1 Nos. fully automatic air brake Starter					
	suitable for 12.50 HP Motor, Main switch of suitable range with					
	HRC fuse, 1 No. Volt meter (0 to 500 Volts), 1 No. Amp.					
	Meter of 0 to 32 Amp., 3 sets of indicating lamp, Capacitor					
	of suitable capacity & 1 No. single phase preventors with the					
	timer switch including wiring in panel board & suitable Electric					
	energy meter wiring from to Electric control panel board complete					
	in all respect of make L&T ML2 as per Specification given					
	in Schedule No.II.					
			4	F 1	_	
	1 x 1		1	Each	Rate to	be quoted by the agency
3	Supplying and fixing following C.I. D/F pipe, CI specials,					
	sluice valves with wheel, non return valves with G.M. Flap					
	including cost of jointing materials, excavation, laying refilling					
	including making adequate supports of masonry/concrete/steel					
	for delivery pipe from submersible pump set upto 1.5 meter					
	outside the outer wall of pump chamber as per plan shown as					
	per specification given in Schedule NoII.					
	A) Detail of pipe and specials					
	a) CI D/F bends, reducers, tapers, tees, tail piece, blank flange			_		
		150	450	D 1	_	
	etc. upto 100 mm i/d 1 x	Kg.	150	Per kg.	Rate to	be quoted by the agency
	B) C.I. D/F pipes			3.60		
			0.75	Mtr.	_	
20.10	, , , , , , , , , , , , , , , , , , , ,	Mtr.	2.75		Rate to	be quoted by the agency
28.10	C) Sluice valves D/F					

	a) 80 mm i/d 3 No. = Nos	3	Each	Rate to be quoted by the agency
4/ 28.10 (a)	Providing & fixing CI double flanged swing check type reflux (NRV) PN - 1.6 marked with IS 5312 of make AARKO, VENUS, LEADER, BIR, PANJA, UPADHYAY.) as per HSR.			
	80 mm i/d			
		1	Each	
	1 x 1			Rate to be quoted by the agency
5/ 28.52	Supplying & lowering into tubewells of GI pippes class B' marked with IS 1239 in 3.05 m length jointing with pumping machinery and lowering into tubewells as per HSR.  50 mm i/d			
		33	Each	·
	1 x 100 = $100/3.05 = 32.77$ or say 33			Rate to be quoted by the agency
6	Earthing with G.I. earth pipe 4.5 meter long 40mm dia with			
/31.2	masonry enclosure & 4mm dia G.I. wire in 15mm dia G.I. pipe			
2 (I	from earth electrode as per I.E./1996 rules & as required by			
+ii)	Chief Electrical Inspector of HVPN as per specification in			
,	schedule No.II complete in all respects. 1x1=1	1	Each	Rate to be quoted by the agency
7	S & E of presure Gauges with siphon cock as per IS : $3624$ , & havinig 150 mm dia, Dial Gauge , in delivery pipe inside pump chamber $1x5=5$	1	Each	Rate to be quoted by the agency
	Total			0

#### Laying of 4" i/d raising main pipe line

#### Sub Head No. -3

S. No	Item	Description	Qty.	Unit	Rate	
1	HSR 8.6 (d)	Dismentalling of cement concrete plain 1:2:4.				
		1x90x0.91x0.18=14.74	14.74	Cum		
2	HSR 8.6 (b)	Dismentalling of cement concrete plain 1:4:8/ 1:5:8				
		1x90x0.91x0.15=12.28	12.28	Cum		
3	6.9 (a)	Excavation for pipe line running under pressure in trenches & pits lanes as per HSR a) without timbering & shoring upto 1.5 mtr.				
		1 x 150 x 0.76 x 0.85=96.90	96.9	Cum		

4	HSR 28.1	Stringing out CI pipes & specials casting along trenches and laying the same in treches to correct alignement and gradients including cartage from Divisional store or nearest railway station to site of works and ret			
	(b)	$100 \text{ mm i/d} = 1 \times 150 = 150$	150	R Mtr.	
5	HSR 28.3 (b)	Cutting CI Pipes and specials & chipping for fillling the surface to a uniform finish.			
		1x10=10	10	Nos.	
6	HSR 28.6	Jointing CI socketted pipes valves and specials with rubber tyton fitted complete including cost of labour & tools etc. & tested complete.			
	(b)	100 mm i/d	28	Each	
7	App. Item	Extra provision for making connection with the existing main pipe line including CID joints etc. as per site complete in all respect.	2	Nos.	

D/Man

Junior Engineer

Assistant Engineer-V