



## **TENDER DOCUMENT**

**FOR**

**TENDER FOR RAIN WATER HARVESTING WORK IN IWAI OFFICE  
CUM R&D COMPLEX AT A-13, SECTOR – 1, NOIDA.**

**TENDER NO. IWAI/PR/BLDG./70/2014**

**INLAND WATERWAYS AUTHORITY OF INDIA  
(MINISTRY OF SHIPPING)**

**A-13, SECTOR - 1,  
NOIDA-201301 (U.P.)**

**E-mail : [mkumar.iwai@nic.in](mailto:mkumar.iwai@nic.in)**

**Website : [www.iwai.gov.in](http://www.iwai.gov.in)**

**<https://eprocure.gov.in/eprocure/app>**

INLAND WATERWAYS AUTHORITY OF INDIA

(MINISTRY OF SHIPPING)

A-13, SECTOR-1, NOIDA-201301(UP)

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<https://eprocure.gov.in/eprocure/app>

TENDER NO. IWAI/IWAI/PR/BLDG./70/2014

To

M/s .....

.....

.....

.....

**SUB: TENDER FOR RAIN WATER HARVESTING WORK IN IWAI OFFICE CUM R&D COMPLEX AT A-13, SECTOR – 1, NOIDA.**

Ref.:

Sir,

Ref.: Your letter no.

Dated:

Sir,

Inland waterways Authority of India (IWAI), Noida invites tender in two cover system (cover I–Technical bid & cover II– Financial bid) from experienced contractors for the above mentioned work. The bids will be placed online at <https://eprocure.gov.in/eprocure/app> not later than 15.00 hrs. on 17.05.2016. Technical bids shall be opened online on 17.05.2016 at 15.30 hrs. The tenderers shall have experience of working in the field for the past 7 years consistently and shall register with the CPWD/MES/Railways or any other Central / State Govt. organization. Firm shall have completed at least three similar works costing not less than Rs. 2.44 lakhs or two similar works costing not less than Rs. 3.66 lakhs or one similar work costing not less than Rs. 4.88 lakhs during last seven years (year ending March, 2015). Tenderer shall submit suitable documents as proof of the eligibility criteria along with the tender.

Issuance of tender document will not construe document that such bidders are automatically considered qualified. For details tender document shall be read carefully.

Asstt. Director & Resident Engineer



**INLAND WATERWAYS AUTHORITY OF INDIA**

(Ministry of Shipping, Government of India)

**A-13, SECTOR-1**

**NOIDA – 201 301 (U.P)**

**TENDER NO. : IWAI/PR/Bldg./70/2014**

**Rain Water Harvesting work in IWAI office cum R&D complex at  
A-13, Sector – 1, Noida.**

**PART-I**

**TECHNICAL BID**



**NOTICE INVITING TENDER**  
**INLAND WATERWAYS AUTHORITY OF INDIA**  
**(MINISTRY OF SHIPPING)**  
**A-13, SECTOR-1, NOIDA-201301 (UP)**

Inland Waterways Authority of India (IWAI) invites online tender / bids in two cover system (cover I–Technical bid & cover II– Financial bid) for the following work from the reputed and eligible firms working in the field for the past 7 year consistently (year ending March, 2015) and which are registered with CPWD/MES/Railways or any other Central Govt./ State Govt. Organization or regular working in IWAI. Firm shall have completed at least three similar works costing not less than 40% of estimated cost or two similar works costing not less than 60% of estimated cost or one similar work costing not less than 80% of the estimated cost during last seven years (year ending March, 2015). The tenderer shall have Permanent Account Number (PAN) issued by Income Tax Department. The tenderer shall have registration with service tax department and having service tax number. The tenderer shall have latest certificate of solvency from nationalized bank/schedule bank included in the second schedule of the RBI Act for not less than 40% of estimated cost.

Name of work	Estimated Cost	EMD (in Rs.)	Time of completion	Date & time of submission of tender	Date & time of opening of Tech. bid
Rain Water Harvesting work of IWAI Office cum R & D Complex at Noida (Tender No.: IWAI/PR/BLDG/70/2014	6.10 lakh	12,200/-	10 Weeks	15.00 hrs. 17.05.2016	15.30 hrs. 17.05.2016

Firms fulfilling the above eligibility criteria may obtain separate tender document along with the terms and condition for each work separately. The complete bid as per the tender documents should be placed online at <https://eprocure.gov.in/eprocure/app> by 15:00 hours on 17.05.2016 and will be opened online on same date at 15:30 hours at IWAI, A-13, Sector-1, Noida – 201301. The scanned copy of all the supporting documents should be submitted along with the online technical bid. Cost of tender shall be submit in form of nonrefundable demand drafts of Rs. 500/- (Rupees Five Hundred only) for each work drawn in favour of “IWAI Fund” payable at Noida/New Delhi on any Nationalized/Scheduled Bank. Site will be inspected on all working days during office hours.

IWAI reserves the right to reject any or all bids without assigning any reasons. For details, refer the website or contact IWAI Office.

Assistant Director & Resident Engineer  
IWAI, Noida

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## FORM OF TENDER

To,

The Assistant Director & Resident Engineer,  
Inland Waterways Authority of India,  
A-13, Sector-1,  
Noida – 201301 (U.P.)

Name of Work: Rain Water Harvesting in IWAI office cum R&D complex at A-13,  
Sector – 1, Noida.

**Sir,**

1. Having visited the site and examined the terms and conditions, Schedules and Bill of Quantities along with all appendix and annexure for the above work, I/We offer to execute the above said work in conformity with the said Conditions of Contract, Specifications, Schedule of quantities for the sum as stated in Bill of quantities of this tender Document or such other sum as may be ascertained in accordance with the said conditions of contract.
2. I/We undertake to complete and deliver the whole of the work comprised in the tender within the time as stated in the tender and also in accordance with the specifications, conditions and instructions as mentioned in the tender documents.
3. I/We agree to abide by this tender. I/We agree to keep the tender open for a period of 90 days from the date of opening of price tender or extension thereto as required by the IWAI and not to make any modifications in its terms bid and conditions.
4. A sum of Rs. 12,200/- (Rupees Twelve thousand & two hundred only) is hereby forwarded in the form of Demand Draft no..... dated ..... issued by ..... (name & branch of bank) payable at ..... as earnest Money. I/We agree, if I/We fail to keep the validity of the bid open as aforesaid or I/we make the modifications in the terms and conditions of my/our bid or I/we fail to commence the execution of the works as above than I/We shall become liable for forfeiture of my/our Earnest money, as aforesaid and IWAI shall without any prejudice to another right or remedy, be at the liberty to forfeit the said Earnest Money absolutely otherwise the said earnest money shall be retained by IWAI towards part of security deposit to execute all the works referred to in the bid documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered. Should this bid be accepted, I/We agree to abide by and fulfil all the terms and conditions and provisions of this bid. No interest is payable on earnest money deposit and/or security deposit.
5. If this bid is accepted, I/We undertake to enter into, at my/our cost when called upon by the employer to do so, a contract agreement in the prescribed form. Unless and until a formal agreement is prepared and extended this bid together with your acceptance thereto shall constitute a binding contract.

6. I/We agree that if my/our bid is accepted, I/We am/are to be jointly and severely responsible for the due performance of the contract.

7. I/We understand that you are not bound to accept the lowest or any bid you may receive and may reject all or any bid without assigning any reason.

8. I/We confirm that all statements documents, information submitted/given with this bid or in support of bid is/are true, genuine, authentic, legitimate and valid. I agree that at any time before award of work or after award to selected/successful bidder in case any of these statement document, information is/are found incorrect, false, wilful misrepresentation or omission of facts or submission of false/forged documents, the EMD/Security deposit submitted by me/us shall be forfeited by IWAI.

9. I/We certify that the bid submitted by me/us is strictly in accordance with the terms, conditions, specifications etc. as contained in the bid document, and it is further certified that it does not contain any deviation to the aforesaid documents.

Date .....

Signature .....

Name .....

Designation .....

duly authorized to sign & submit bid for an on behalf of  
(Name and address of firm)

M/s

.....

.....

.....

Telephone Nos. ....

FAX No. ....

Witness:

Signature: .....

Name : .....

Occupation: .....

Address: .....

.....

Telephone nos.: .....

## **INSTRUCTION FOR SUBMISSION OF BID**

- 1.0 All covering letters and information to be included in the bid shall be submitted with bid itself.
- 2.0 Tender should be submitted online at <https://eprocure.gov.in/eprocure/app> by 15.00 hours on 17.05.2016 in two bid system i.e. technical bid and financial bid. Technical bid will be open online on same day at 15.30 hours at IWAI, A-13, Sector-1, Noida.
- 2.1 TECHNICAL BID**
- Technical bid shall be submitted along with scanned copy of the following documents:**
- a) Original Bid document duly completed and filled except prices.
  - b) Blank Proforma of Schedule of price (price not to be filled).
  - c) Earnest Money Deposit (Demand Draft as prescribed).
  - d) Copy of document in the respect of registration with MES, Railways, CPWD, or any Central / State Govt. organization.
  - e) Experience Certificate.
  - f) Permanent Account Number (PAN) issued by the Income Tax Department.
  - g) Service Tax Number issued by Service Tax Department.
  - h) Solvency certificate from any nationalized/schedule bank.
  - i) Letter of Authority for signing and negotiations of tender.
  - j) The firm should have average turnover during the last three years ending 31<sup>st</sup> March of the previous financial year of at least 100% of estimated cost.
  - k) Any additional relevant information to be furnished by the bidder.
- 2.2 PRICE BID**
- The price bid shall be submitted original for:**
- a) Schedule of price duly filled in the specified form.
  - b) It may please be noted that this part shall not contain any terms and conditions. These, if any must be brought out in Part-I only. Any conditions given in the price bid will not be taken into account and it will be sufficient cause for rejection of bid.
- 3.0 Bidders are advised to submit tenders strictly based upon technical specification, terms and condition contained in documents and not to stipulate any deviations. Should it, however, become unavoidable, deviations should be stipulated in proposal in Part-I. IWAI reserve the right to evaluate bids containing deviation as determined by IWAI. Any change in this may lead to rejection of bid.
- 4.0 Earnest Money Deposit of Rs. 12,200/- (Rupees twelve thousand two hundred only) should be submitted by Demand Draft drawn in favour of "IWAI fund" payable at Noida/New Delhi on any Nationalized / schedule Bank of India. Bids not accompanied with EMD in from of Demand Draft are liable for rejection.



- 5.0 IWAI reserves the right to reject any or all bids without assigning any reasons.
- 6.0 Late bids, delayed bids received after the stipulated last date and time for receipt of bids, due to any reasons whatsoever will not be considered.
- 7.0 The bid can only be submitted in the name of the bidder in whose name the bid documents were issued by the IWAI.
- 8.0 Any annotation or accompanying documentation in the bid shall be in Hindi or English language only and in metric system. Tender filled in any other language only will be summarily rejected.
- 9.0 Bidder shall sign their proposal with the exact name of the firm to whom the bid document has been issued. The bid shall be duly signed and sealed by an authorized persons of the bidder's organization as following:
- 10 (a) If the tender is submitted by an individual, it shall be duly signed and sealed by an proprietor above his full name and full name of his firm with its current business address.
- 10 (b) If the tender is submitted by the proprietary firm, it shall be signed by the proprietor above his full name and full name of his firm with its current business address.
- 10 (c) If the tender is submitted by a firm in partnership, it shall be signed by the firm with their full names and current business address, or by a partner holding the power of attorney for the firm for signing the Tender in which cases a certified copy of the power of attorney shall accompany the Tender. A certified copy of the partnership deed and current business address of all the partners of the firm shall also accompany the Tender.
- 10 (d) If the tender is submitted by a limited company, or a limited corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the Tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded 'Satisfactory evidence' means the certificate of incorporation of the limited company or corporation under Indian Companies Act, 1956.
- 10 (e) If the Tender is submitted by a group of firms, the sponsoring firm shall be submit complete information pertaining to each firm in the group and state along with the bid as to which of the firm shall have the responsibility for tendering and for completion of the contract document and furnish evidence admissible in law in respect of the authority assigned to such firm on behalf of the group of firms for tendering and for completion of the contract document. The full information and satisfactory evidence pertaining to the participation of each member of the group of firm in the Tender shall be furnished along with the Tender.
- 10 (f) All witnesses and sureties shall be persons of states and their full name, occupations and addresses shall be stated below their signatures. All signatures affixed in each page in the tender will be dated.

- 11.0 Bidders shall clearly indicate legal constitutions and the person signing the tender shall state his capacity and also the source of his ability to bind the bidder. The power of attorney or authorization or any other document constituting adequate proof of the ability of the signatory to bind the bidder shall be annexed to the bid. The Owner may reject outright any bid unsupported by adequate proof of the signatory's authority.
- 12.0 The bid document shall be completed in all respect and shall be submitted together with the requisite information and appendices. They shall be complete and free from ambiguity, change or inter-lineation.
- 13.0 If the space in the bid form or in the appendices thereto is insufficient, additional pages shall be separately added. These page shall be consecutively page numbered and shall be separately also be signed by the Bidder.
- 14.0 The Bid document shall be signed by the bidder on each page.
- 15.0 Bidder should indicate at the time of quoting against this bid their full postal addresses with FAX and telephone numbers.
- 16.0 Bidders shall set their quotations in the firm figures and without qualification. Each figure stated should also be repeated in words and in the event of any discrepancy between the amounts stated in figures and words, the amount quoted in words shall be deemed the correct amount. Bid containing qualifying expression such as "subject to minimum acceptance" or "subject to availability of material/equipment" etc., is liable to be rejected.
- 17.0 IWAI shall have a unqualified option to claim the amount submitted along with the tender as EMD in the event of the Bidder failing to keep the bid valid up to the date specified or refusing to accept work or carry it out in accordance with the bid if the IWAI decided to award the work to the bidder.
- 18.0 The EMD shall be retained with the IWAI until finalization of tenders. Further, security deposit @10% of the value of each running bill shall be deducted from the running bills in the event of the Bidder becoming the successful Contractor. The amount of EMD would be adjusted against the security deposit.
- 19.0 IWAI shall however, arrange to release the EMD in respect of unsuccessful bidders within 30 (thirty) days of placement of order successful bidder.
- 20.0 The tender Evaluation committee (TEC) shall open the tenders in the presence of the intending tenderers who may be present at the date and time of opening informed in the bid document or subsequently. If any of the tenderers or his agent is not present at the time of opening of tender, the TEC shall, on opening of tenders of the absentee tenderer, prepare a statement of the attested and unattested corrections in the tender over their signature. Such a list shall then be binding on the absent tenderer.

- 21.0 The successful tenderers shall be required to execute a contract agreement in the given format. In case of any refusal/failure on the part of such successful bidder to comply with the terms contained herein.
- 22.0 IWAI reserves the right to reject any or all bids without assigning any reasons.

## DEFINITIONS

1. The Contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the Competent Authority on behalf of the Chairman, Inland Waterways Authority of India and the contractor, together within the documents referred to therein including these conditions the specification, designs drawings and instructions issued from time to time by the Engineer In Charge and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expression shall, unless the context otherwise requires, have the meaning, hereby respectively assigned to them:
  - i) The expression work or works shall unless there to something either in the subject or context repugnant to such construction be constructed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original offered substituted or additional.
  - ii) The 'Contractor's shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm of company.
  - iii) The 'Employer' means the Chairman, Inland Waterways Authority of India and his successor.
  - iv) The 'Engineer/Engineer-in-Charge' means the officer of The IWAI who shall supervise and be in charge of the work and who shall sign the contract on behalf of the Employer.
  - v) 'Engineer-in-Charge' Representative' shall mean any officer of the Authority nominated by the Engineer to work on his behalf for supervision, checking, taking measurement, checking bills, ensuring quality control, inspecting works, issue instructions and other related works for completion of the project.
  - vi) 'IWAI/Authority /Department/Owner' shall mean the Inland Waterways Authority of India, which invites tenders on behalf of the Chairman, IWAI.
  - vii) The 'Site' shall mean IWAI office cum R&D Complex Building at A-13, Sector-1, Noida.
  - viii) The term 'Day' shall mean a calendar day beginning and ending at midnight.
  - ix) The term 'Week' shall mean seven consecutive calendar days.
  - x) The term 'Month' shall mean the English Calendar Month.
  - xi) Expected Risk are risks due to riots (other than those on account of contractor's employees) war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any act of Govt. damages, act of God, such as earthquake, lightening and unprecedented flood, and other causes over which the contractor has no control.

- xii) Market rate shall be rate as decided by the Engineer-in-Charge on the basis of the cost of material and labour at the site where the work is to be executed plus the 10% (ten percent) to cover all over heads and profits.
- xiii) Schedule referred to in these conditions shall mean the relevant Schedules annexed to the tender papers or the standard schedule of rate of the Govt. mentioned with the amendments thereto issued up to the date of receipt of the tender.
- xiv) District specifications mean the specifications followed by the state Government in the area where the work is to be executed.
- xv) Tendered value means the value of the entire work as stipulated in the letter of award.
- xvi) 'Satisfactory evidence' for the purposes of clause 10 (d) of instruction for submission of bid means the certificate of incorporation of the limited company or incorporation of the limited company or corporation under Indian Companies Act, 1956.

#### Interpretation clause

- Word Importing the singular number only includes the plural number and vice versa.

## **GENERAL CONDITIONS**

1. All works proposed in this contract shall be as per the NIT and specification given in the tender document.
2. The person/s whose tender(s) may be accepted (herein after called the contractor) shall permit IWAI/Govt. at the time of making any payment to his for work done under the contract to deduct such amount to 10% of the total cost of the work. Such deduction to be held by Govt. by way of security deposit provided always that the Govt. for this purpose should be entitled to recover the amount from each running bill until the balance of the amount of security deposit is realized. All compensation of other sum of money payable by the contractor under the terms of this contract may be deducted from or paid by the sale of a sufficient part of his security deposit. In case security deposit is reduced by reasons of any deductions or sale as aforesaid the contract shall within 10 days make good in cash or demand draft in favour of Inland Waterways Authority of India. The security deposit shall be collected from the running bills of the contract at the rates mentioned above and the earnest money if deposited at the time of tender will be treated as part of security deposit. No interest shall be payable on security deposit or earnest money deposit.
3. The Security Deposit of Contractor shall not be refundable before the expiry of the three months after completion of the work.
4. If the contractor fails to complete all items of works within the period(s) of completion as stipulated in the aforesaid tender or any extended period (not due to the fault of the contractor) as may be agreed he shall without prejudice to any other right or remedy of the Authority on account of such default, pay compensation (not by way of penalty) at the rate of ½ % (Half percent) per week or part of week on the total value of the contract subject to a maximum of 10% of the total values of the contract.
5. In every case in which the payment or allowance mentioned in above clause shall have incurred for ten consecutive days the Engineer-in-Charge shall have the power to annul the contract and or have the work completed through some other firm and the contractor shall have no claim to compensation for any loss that may incur in any case.
6. If the contractor shall be hindered in the supply of the time of the material or any other reasons for which the work is delayed which necessitates an extension or the time allowed in this tender, he shall apply in writing to the Engineer-in-Charge who shall grant it in writing if there are reasonable ground for it, and without such Authority in writing by the Engineer-in-Charge, the contractor shall not claim exempted from the fine livable under clause 5. For the completion of the rest of the works the contractor shall be entitled such extension of time as may be determined by the Engineer-in-Charge.

7. The contractor shall inform the Engineer-in-Charge of his intension of making delivery or material and on the material being approved the Engineer-in-Charge or his authorized representative.
8. On the completion of the work the contractor shall be furnished with a certificate to that effect by the Engineer-in-Charge but the work will not be considered complete until the contractor shall have removed all rejected material and made the site tidy.
9. If at any time after the commencement of the work the chairman, IWAI shall for any reason whatsoever not require the whole or part thereof as specified in the tender to be executed, the Engineer-in-Charge shall in addition to his power to annul the contract in case of default on the part of the contactor, have power to terminate all liability of the IWAI/Govt. there under at any time with a due notice in writing to the contractor of his desire to do so. In the event of such a notice being given:
  - a) The Engineer-in-Charge shall be entitled to direct the contractor to compensate the work up to the expiry of the notice and thereafter to cease all their work completed up to that date shall be paid for at the tender rate, and
  - b) The contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived in consequence of the full execution of the contract but which he did not obtain owing to its premature termination or for any loss which he might have sustained on this account.
10. No payment should be made for a work estimated to cost Rupees Five Thousand or less till the whole of the work shall have been completed and certificate of completion given. But in the case of work estimated to cost more than Rupees Five Thousand and contractor shall on submitting the bill be entitled to receive a monthly payment proportionate to the part thereof then executed to the satisfaction of the Engineer-in-Charge, whose certificate of the sum of payable shall be final and conclusive against the contractor.
11. Payment due to the contractor may, if so desired by him, be made to his bank instead direct to him, provided that the contractor furnishes the Engineer-in-Charge (1) an authorization in the form of a legally valid documents such as a power of attorney containing authority on the bank to receive payment and (2) his own acceptance of the correctness of the account made out as being due to him by Government or his signature on the bill or other claim by payment to the bank while the receipt by such bank shall constitute a full and sufficient discharge for he payment, the contractor should, wherever possible present his bills duly receipted and discharge through his bankers.
12. Nothing herein contained shall separate to create in favour of the bank any right or equites vis-a-vis the IWAI.

13. The material and work shall be of the best description and in strict accordance with the specification and the contractor shall receive payment for such works only as are approved and passed by the Engineer-in-Charge.
14. In the event of the material or work being considered by the Engineer-in-Charge to be inferior to that described in the specifications, the contractor shall on demand in writing forthwith remove the same at his own charge and cost and in the event of his neglecting to do so within such period as may be named by the Engineer-in-Charge that office may have such rejected material removed at the contractor's risk and the expense incurred being liable to be deducted from any sums due or which may become due to the contractor.
15. If the contractor or his work people or servant shall break, deface injure or destroy building, road, fence, enclosure, water pipes, cabbies, drains, electric or telephone post or wires, trees, grass or grass land or any other property belonging to IWAI or any other contractor working in the same premises where the material are being supplied, he shall make good the same at his own expense by Engineer-in-Charge, who shall deduct the cost from any sums dues, or which may become due to the contractor.
16. The contractor shall supply at his own expense all tools, plant and equipment required for the due fulfillment of this contract and the material shall remain at his risk till the date of final delivery, unless it shall have been in the meantime remove for use by the Engineer-in-Charge.
17. No material shall be brought to site or delivery given on Sunday or holiday without the written permission of the Engineer-in-Charge. Normally all material shall be delivered during office hours and with prior information to the Engineer-in-Charge.
18. This contract shall not be sublet without the written permission of the Engineer-in-Charge. In the event of the contract subletting his contract without such permission he shall be considered to have thereby committed a breach of contract, and shall forfeit his security and shall have no claim for any compensation for any loss.
  - a) The Engineer-in-Charge shall have power to make any alternation, omissions, additions or substitutions in the original specifications, drawing, designs and instruction that may appear to his to be necessary or advisable during the course of execution and the contractor shall be bound to execute the work in accordance with any such instructions which may be given to him in writing signed by the Engineer-in-Charge and such alternation, omissions, additions or subtraction shall not invalidate the contractor, and altered additional or substituted item which the contractor may be directed to execute in the manner above specified as part of the work shall be executed



by the Contractor on the same condition in all respect for which he agreed to do the main work, and at the same rates, as 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 quantity of item bears to the original quantity and the certificate of Engineer-in-Charge shall be conclusive as to such proportion. And if the altered, additional or substituted items include any class of materials, for which the rate is specified on this contract than such work shall be executed at the rates entered in the schedule of rates of the main contract direct on which the estimate cost shown in the tender is passed and in such class of work are not entered in the schedule of rates than the contractor shall within seven days of the date or his receipt of the order to execute the work inform the such class of material and if the Engineer-in-Charge does not agree to this rate he shall give notice in writing and be a liberty to cancel this work, such class of material and arrange the supply thereof in such manner as he may consider advisable provided always that if the contractor shall commence supply or incur any expenditure in regard thereto before the rates shall have been determined as lastly herein before mentioned time and in such case he shall be entitled be paid in respect of the supply made or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rate shall be fixed by the Engineer-in-Charge. In the event of any disputes the decision of the chairman, IWAI shall be final and binding to all.

19. 1.(a) In every case in which by virtue of the provision 12 Sub Section (1) of the workman's Compensations Act, 1923, Govt. is obliged to pay compensations to a worker employed by the contractor, in execution of the works Government will recover from the Contractor the amount of the Compensation so paid and with prejudice to the rights of Govt. under Section 12, Sub Section (2) of the said Act Government shall be a liberty to recover such amount of any part thereof by deducting if from the security deposit or from any sum due by IWAI/Govt. to the contractor whether under this contract or otherwise.
  - (b) IWAI/Govt. shall not be bound to contract any claim made against it under Section 12, Sub Sec. (1) of the said Act, except on the written request of the Contractor upon his giving to Government full security for all costs for which Govt. might become liable in consequence of contesting such claim.
19. 2 (a) The Contractor shall pay not less than fair wage to laborers engaged by him on the work.

Explanation: "Fair Wages" means whether for time or place 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 Government for the district in which the work is done.

- (b) The Contractor shall notwithstanding the provisions of any contract to the contrary cause to be paid fair wages to laborers indirectly engaged on the work including any labour engaged by his subcontractors in connections with the said work as if the laborers had been immediately employed by him.
- (c) In respect of all labour directly or indirectly employed in the works for the performances of the contractor's part of this agreement the contract shall comply with or cause to be completed with CPWD contractor's labour Regulations made by Government from time to time in regard payment wages, wage period, deduction from made maintenance of wage register, wage cards, publication of scale of wage and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.
- (d) Under the provision of the minimum Wages Act, 1948 and the minimum wages (Central) Rules 1950 the contractor is bound to allow of cause to be allowed to the laborers directly or indirectly employment in the works one day's rest for six days continuous work and pay wages at the same rate as for duty in the event of default the Engineer-in-Charge concerned shall have the right to deduct the sum of sums not paid on account of wages for weekly holiday to any pay the same to the persons entitled thereto from money due to the contractor.
- (e) Vis-à-vis the Central Government to the contract shall be primarily liable for the payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnify from his sub-contractor.
- (f) The regulations aforesaid shall be deemed to be part of contract and any breach thereof shall be deemed to be breach of this contract.

19.3 In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement the contractor shall comply with the cause to be complied with all rules framed by Government from time to time for protection of health and sanitary arrangements for workers employed by the CPWD and its contractors.

19.4 In the event of the contractor(s) committing a default of any of the provisions or of the Central Public Works Department Contractor's Labour Regulations of Model Rules for the protections of health and sanitary arrangement for the workers as amended from time to time or furnishing any information or submitting or filling any statements under the provisions of the above Regulations and Rules which is incorrect he/they shall without prejudice to any other liability pay to the Government a sum not exceed Rs. 50.00 per every default/breach or furnishing /making /submitting/filling such materially incorrect statement and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced of the Rs. 50/- per day for each of default subject to a maximum

of 5 percent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.

20. Except otherwise provided in the contract all questions and disputes relating to the meaning of the specification designed drawing and instructions herein mentioned as to the quality of workmanship or material used on the work or as to any other question claim right matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, instructions, order or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the completion, abandonment thereof shall be referred to the sole arbitrator or the person appointed by the Chief Engineer, IWAI, in charge of work. At the time of such appointment, it will be no objection to any such appointment that the arbitrator so appointed is a IWAI/Government servant that he had deal with the matter to which the contract relates and that in the course of his duties as Govt. servant he had expressed views on all or any of the matters in disputes or difference. The arbitrator to whom the matter is referred being transferred or vacating his office or being unable to act for any reasons, such C.E. or administrative head as aforesaid at the time of such transfer vacation of office or inability to act shall appoint another to act as arbitrator in accordance with the terms of the contract. Such persons shall be entitled to proceed with the reference from the stage at which it was left by his predecessor, it is also a term of this contract that one person other than a person appointed by such Chief Engineer or administrative head of the IWAI as aforesaid should act as arbitrator and of fore any reason, that is not possible, the matter is not to be referred to arbitration at all.
21. Subject to as aforesaid the provisions of the Arbitration Act, 1940, or any statutory modification or re-effacement thereof and the rules made there under and for time being in force shall apply to the arbitration proceedings under this clause.
22. It is a term of the contract that the party invoking arbitration shall specify the disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of such dispute.

The arbitrator(s) may from time to time with consent of the parties enlarge the time, for making and publishing the award.

- 22 (a) The arbitrator/s shall make such inquiries and shall call upon such evidences as he may deem fit.
- 22 (b) The arbitrator/s may call upon the parties for their personal appearance before him on the date fixed by him at the specified time and place.
- 22 (c) That in case of non-appearance of either of the parties the arbitrator/s shall proceed ex-parte.

- 22 (d) The decision of the arbitrator/s shall be binding on the parties their legal representatives, successors and heirs.
- 22 (e) The cost of the reference shall be on the sole discretion of the arbitrator/s.
23. On the breach of any terms or conditions of this contract by the said owner/ IWAI shall be entitled to forfeit the security deposit or the balance thereof that may at that time be remaining and to release and retain the same as damages and compensation for the said breach but without prejudice to right of the said owner/IWAI to recover any further sums as damages from any sums due or which may become due to the contractor by Government or otherwise howsoever.
24. Without prejudice to any of the right or remedies under this contract. If the contractor dies the Engineer-in-Charge on behalf of Chairman, IWAI shall have the option of terminating the contractor without compensation of the contractor.
25. (1) Whenever any claim against the contractor for the payment of a sum of money arise out or the under the contract, IWAI shall be entitled to recover such sum by appropriating in part or whole the security deposit of the contractor and to sell any of his equipment etc. at site. In event of the security being insufficient or if no security has been taken from the contract then the balance or the total sum recoverable as the case may be, shall be deducted from any sum hence due or which at any time thereafter may become due from the contractor under this or any other contract with the Government. Should this sum be not sufficient to cover the full amount recoverable, the contractor shall pay to IWAI/Government on demand the balance remaining due.
- (2) IWAI/Government shall have the right to cause an audit and technical examination of the works and final bill of the contractor including all supporting vouchers abstract etc. to be made after payment of final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed by him to have been done by him under contract and found not to have been executed the contract shall be lawful for Government to recover the same from him in the manner Described in sub clause (1) of this clause or in any other manner legally permissible and if as a result of audit and technical examination, it is found that contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by IWAI to the contractor.
- (3) PROVIDED that IWAI/Government shall not be entitled to recover any sum overpaid, not the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Engineer-in-Charge on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Competent Authority.

## **SPECIAL CONDITIONS**

1. Scope of work: The present scope of work for Rain Water Harvesting of IWAI Office cum R&D Complex at A-13, Sector-1, Noida shall include all the work of boring / drilling collecting of samples from different strata, supply & lowering of PVC pipe casing, supply & filling of stone boulders & gravels, gravel packing of boar well, development of tube well earthwork in excavation of pit & trenches, earth filling RCC work in walls, beams & suspended floor, centering shuttering, steel reinforcement, laying of pipe, construction of main hole & road gully chamber and steel work welded in built up section / framework etc. The material shall conform to the latest version of relevant codes/specifications of Bureau of Indian Standard and as per direction of Engineer-in-Charge or his authorized representative.
2. The work is to be done in IWAI Office cum R&D complex building and quote shall be applicable for all floors including scaffolding, staging, material lifting arrangements etc. as may be required for satisfactory completion of work.
3. The work is to be done in such a way that the officer's staff & workers working in the office are not affected/disturbed.
4. The prices shall include all the taxes, levies, cess, octroi, excise, service tax or any other local or central taxes as applicable/charged by Central or State Government. No extra in this regard shall be payable. Service Tax will be reimbursed on submission of proof of payment of Service Tax to the Service Tax Department.
5. No form regarding sales tax, trade tax or any other exemption, etc. will be supplied by IWAI. However, department would assist to the contractor for arranging these documents at contractor's cost by writing to the concerned authorities only. Supply or arrangements of these forms, if required, shall be responsibility of the contractor.
6. All labors, material, tools, machinery, equipment and any other things required for execution for work shall be arranged by the contractor at his own cost. Contractor shall ensure the safety of his workman and work.
7. All arrangements for establishment, watch & ward of stores and security of sites, permits, license, appropriate vehicles for transportation, handling etc. shall have to be made by the contractor at his own cost and nothing extra on this account shall be paid.
8. The cost associated with preparation and submission of bid shall be borne by the bidder. The cost of stamp duties etc. required in connection with contract agreement shall be borne by the bidder.
9. The Engineer-in-Charge may issue instructions to the Contractor, which may be necessary for the contractor to perform his obligations under the contract. The contractor or his authorized representative shall be available for taking the instructions from the Engineer-in-Charge or his authorized representative.

10. The contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Contract Price. The contract Price covers all the Contractor's obligations under the contract and all things necessary for the proper design, execution and completion of the works.
11. The contractor shall take all reasonable steps to protect the environment and to limit damage and nuisance to people and property resulting from pollution, noise dust, gases, fuel and other result of his operations.
12. On the completion of the works, the contractor shall clear away and remove for from the site all construction plant, temporary works, surplus material and rubbish of every kind and leave the site and works clean to the satisfaction of the Engineer-in-Charge.
13. The contractor shall inspect the site before quoting their rates so that the extent of civil, electrical, plumbing and associated works for repair and maintenance of the Inland Waterways Authority of India Office cum R&D Complex Building.
14. Payment: Payment will be made on completion of every component of work, contractor shall submit their running bill for the payment after the measurement is recorded by the representative of the Engineer-in-Charge in the measurement books. Part rate payment will not be permitted. Minimum fortnightly bills will be considered for payment.
15. Necessary deduction for Security Deposit, TDS etc. shall be made from the bills.
16. The validity of the tender document shall be 90 days from the date of submission of tender.
17. TIME: Time is the essence of the contract. The time period of 10 weeks shall be allowed for completion of work from the date of issue of work order or as started in the work order.
18. If at any time, during the execution of this work, Contractor is unable to complete the work within the specified schedule, IWAI shall be entitled at their option to terminate the order without prejudice to any other rights IWAI may have result of the failure on contractor part. IWAI shall have the right to execute the works or remaining part of it, from other sources at contractor's risk and cost by giving a suitable notice.
19. The material supplied and installed and work executed shall be guaranteed against any defect or workmanship for a period of 12 calendar months from the date of completion. During this guarantee period, in case of any defective material or workmanship, contractor will undertake to repair or replace any part, assembly or portion thereof, at the site without any cost to IWAI. Contractor will also undertake to attend complaint at the site within 24 hours of getting the intimation either by telephone, letter or fax. The guarantee shall be given by the Contractor on non-judicial stamp paper before the submission of final bill. Normal wear and tear of moving parts would be allowed.

20. The contractor shall execute and complete the works in accordance with the contract, and shall remedy the defect in the works.
21. Specification for civil works and shall be CPWD Specification, 2009 with up to date corrections.
22. Contractor shall ensure that their material, workman do not obstruct/damage the office furniture, material, files, racks and other goods etc. and maintain a peaceful atmosphere. The entire work shall be done at contractor's risk. Any damage to the property or injury to any of the office staff, visitors and labour of the other contractors working at the same site under separate agreement with IWAI or to any of contractor own staff/labour shall be completely at contractor risks and costs. Contractor shall also undertake the necessary insurance cover for their entire workman working at site and submit the copy of insurance cover to IWAI. Contractors should undertake work in workman like manner and it should not create hindrance to the work of the other contractors working at site.
23. Contractor shall obtain prior permission for working after office hours. Contractor shall ensure proper cleaning of floors painting spots, scrapping dust from furniture electric fixtures, office equipment, floor etc.
24. **FORCE MAJEURE:**
- 24.1 If at any time during the continuance of this contract, it becomes impossible by reasons of war, warlike operation, strikes, riots, civil commotion, epidemical sickness, pestilence, earthquake, fire storm or floods, you shall during the continuance of such calamities be not bound to execute the contract provided always that the work shall be resumed immediately on the cessation or otherwise termination of the calamity and your obligations under various clauses of this contract shall continue to be in force and time necessary for the fulfilment of your obligation shall be extended correspondingly to the period for which the calamity lasted.
- 24.2 Non-availability of power due to any reason shall not constitute force majeure.
- 24.3 Contractor will inform the Engineer-in-Charge by fax, followed confirmed by registered post, appropriate documentation in support of the beginning and end of the force majeure conditions as per clause stated above, the working period will suitable be extended by Engineer-in-Charge if the clause for the delay are beyond the control of contractor and are as per the clause 23 above.
25. The work programme submitted with the tender shall clearly specify the period required for completion of work.

**26. UNSATISFACTORY PERFORMANCE:**

- 26.1 In case of unsatisfactory performance/progress/services by the Contractor, IWAI shall have the right to issue a show cause notice to the contractor requiring him to explain the reason thereof.
- 26.2 In case of continuation of such unsatisfactory performance/progress/services, IWAI reserves the right to rescind the contract and get the balance work executed at the risk and cost of the contractor.

**27. NOTICE**

- 27.1 All notices and communications under the Contract shall be given in writing and Any oral order/instructions given shall be confirmed in writing and no such communications which is not given or confirmed in writing shall be valid.
- 27.2 All instructions notices communications shall be deemed to have been duly given or sent to the contractor, if delivered to the contractor, his authorized agent, or left at, or posted to the address given by the contractor or his authorized agent or to the last known piece of abode or business or the contractor or his agent of services by post, shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him in other cases on the day on which the same were so delivered or left.
- 27.3 The contract embodies the the entire understanding of the parties as to its subject matter and shall not be amended except in writing executed by both parties and subject to the approval of the concerned authorities.

**28. JURISDICTION**

Only the Courts in Noida shall have jurisdiction to entertain try and determine or adjudicate all section, suits and legal proceedings arising out of or in relation to these proceedings arising out of arbitration or otherwise between the parties.

**29. LAWS GOVERNING THE CONTRACT**

This contract shall be constituted and interpreted in accordance with and be governed by the laws of India, which have the most intimate connection with the performance or obligation of parties and the same are proper laws of the contract.



## **TECHNICAL SPECIFICATIONS**

### **A. GENERAL**

- i) The work shall be executed and measured as per metric dimensions given in the schedule of quantities, etc. (FPS units wherever indicated are for guidance only).
- ii) The Contractor shall be responsible of the protection of existing floors, woodworks, electrical fitting, furniture etc. during execution of work.
- iii) Specification for civil work shall be CPWD specification, 2009 with up to date corrections.
- iv) It is assumed that before tendering the Contractor would have visited the site and familiarized himself with all the local conditions and means of transportation and communications. No claim of whatsoever nature would be entertained at a later date on account of the Contractor's ignorance of the local conditions.
- v) The Contractor shall provide, free of cost, all equipment's, instruments, labour and all other allied assistance required by the Engineer-in-Charge or their representative for measurement and testing of the works.

### **B. CIVIL WORK**

- a) Cement requirement for the work shall be procured by the contractor.
- b) The contractor shall procure 53 grade Pozolona Portland Cement (PPC) conforming to relevant IS code as required in the work from reputed manufacturers.
- c) The supply of cement shall be taken in 50 kg. bags bearing manufacturer's name and ISI marking. The stacking of the cement bags shall be as per CPWD specifications 2009.
- d) The contractor shall supply free of charge the cement and other material required for testing. The cost of tests shall be borne by the contractor.
- e) For non-schedule items, the decision of the chief Engineer regarding theoretical quantity of cement, which should have been actually used, shall be final and binding on the contractor.
- f) The TMT bars shall conform to the specification of Fe-500D grade of BIS 1786-2009.
- g) The steel reinforcement bars shall be stored by the Contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

- h) The cover blocks, wherever used, for proper cover & to avoid displacement of reinforcement bars shall be manufactured in factory noting extra shall be paid for providing such cover blocks in the work.
- i) Nothing extra shall be paid for the centering & shuttering circular in shape wherever the form work is having a mean radius exceeding 6 m in plan.
- j) Sample of material are to be submitted well in advance to the Engineer-in-Charge for approval. Approved samples should be kept at site with the Engineer-in-Charge and the same shall not be removed except with the written permission of Engineer-in-Charge. No payment whatsoever will be made for these samples.
- k) The rate shall include the cost of all materials and labour involved in all the operations. Nothing extra shall be paid for any of the work.
- l) The Contractor shall at his own costs and charges, provide places for disposal of all surplus materials not required to be used on the works. As each trench is refilled, the surplus soil shall be immediately removed, the surface properly restored and roadways and sides left clear.
- m) The pipes shall be laid on a bed of 15 cm thick cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate of 40 mm nominal size) mix or as specified, with sockets leading uphill and should rest on solid and even foundations for the full length of the barrel. Socket holes shall be formed in the foundation sufficiently deep to allow the pipes jointer room to work right round the pipes and as short as practicable to admit the socket and allow the joint to be made.

## LIST OF ACCEPTABLE MATERIAL

<b>S. NO.</b>	<b>Name of Material</b>	<b>Make/Brand Name</b>
1.	Cement	ACC, L&T, Ultrateck, Birla & Ambuja
2.	Steel reinforcement	SAIL, TISCO, Jindal & Rathi
3.	MS Sections	SAIL, TISCO, Jindal & Rathi
4.	Synthetic enamel paint	Asian, Berger, ICI, Nerolac & Shalimar
5.	PVC Pipe	Astral, Supreme, Prakash Gold & Apollo
6.	RCC Pipe	ACC & Anand
7.	Man hole cover	RIF & Astral

**AGREEMENT FORMAT**

This agreement made on \_\_\_\_\_ day \_\_\_\_\_ year \_\_\_\_\_ between the Inland Waterways Authority of India (hereinafter called the 'IWAI' which expression shall unless excluded by or repugnant, to the context, be deemed to include heir, successors in office) on one part and M/S \_\_\_\_\_ (hereinafter called the 'CONTRACTOR' which expression, shall unless excluded by repugnant to the context be deemed to include his heirs, executors, Administrators, representatives and assigns of successors in the office) on the other part.

WHEREAS THE IWAI desirous of undertaking the works for

---

WHEREAS the contractor has offered to execute and complete such works and whereas IWAI has accepted the tender of the contractor and WHEREAS the contractor has \_\_\_\_\_  
Furnished

---

as security for the due fulfillment for all the conditions of this contract.

NOW IN THIS AGREEMENT WITNESSTH AS FOLLOWS

In this agreement words and expression shall have the same meaning as are respectively as assigned to them in the conditions of the contract hereinafter referred to:

The following documents shall be deemed to form and be read and constructed as part of this agreement VIZ.

- i) (a) Notice Inviting Tenders
  - (b) Tender form
  - (c) Warranty
- ii) Information & instruction for Tenders
- iii) (a) Schedule: Bill of Quantity
  - (b) Annexure
- iv) General Conditions of Contract
- v) Technical specifications and Special Conditions of Contract

The contract agreement has been complied by the IWAI from the original tender documents and all the correspondences from the tendering stage till acceptance. In the event of any difference arising from the completion of the contract, the original tender documents, contractor's offer, minutes of meeting and correspondence between the party ended vide letter No. \_\_\_\_\_ may be referred to by either party. These documents shall take precedence over the complied documents.

The contractor hereby covenants with the IWAI to complete and maintain the "WORKS" in conformity in all respect, with the provision of the agreement.

The IWAI hereby covenants to pay the contractor in consideration of such completion of work, the contract price at the time and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties hereunto have set their hands and seals on the day year first written.

For and on behalf of  
*(Inland Waterways Authority of India)*

For and on behalf of  
*Contractor*

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Name & Designation \_\_\_\_\_

Name & Designation \_\_\_\_\_

Stamp

Stamp

Witness:

Witness:

1) Signature \_\_\_\_\_

1) Signature \_\_\_\_\_

2) Name & Designation \_\_\_\_\_

2) Name & Designation \_\_\_\_\_

**PROFORMA FOR EXPERIENCE**

**DETAIL OF SIMILAR WORKS CARRIED OUT BY THE FIRM**

**[SEPARATE SHEETS MAY BE ATTACHED]**

<b>NAME OF ORGANIZATION</b>	<b>NAME OF THE WORK</b>	<b>CONTRACT VALUE</b>	<b>SCHEDULE DATE OF COMPLETION (WITH EXTN. OF TIME, IF ANY)</b>	<b>ACTUAL DELAY IN COMPLETION, IF ANY</b>	<b>REASON FOR COMPLETION,</b>
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**INLAND WATERWAYS AUTHORITY OF INDIA**

(Ministry of Shipping, Government of India)

**A-13, SECTOR-1**

**NOIDA – 201 301 (U.P)**

**TENDER NO. : IWAI/PR/Bldg./70/2014**

**Rain Water Harvesting work of IWAI office cum R&D complex at A-13,  
Sector – 1, Noida.**

**PART-II**

**PRICE BID**

## Bill of Quantities

Name of work: Rain Water Harvesting work of IWAI office cum R&D Complex at A – 13,  
Sector -1, Noida.

Sl. No.	Description	Unit	Qty.	Rate	Amount
<b>1.0</b>	<b>Drilling of Recharge Well</b>				
1.1	Transportation of Rig & Equipment to sit, installation and commissioning of rig, digging of temporary pits and filling these after drilling. (Non-Scheduled)	Job	1		
1.2	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipment's, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, up to 90 metre depth below ground level. (a) All types of soil (i) 300 mm dia (CPWD DSR-2013 item no. 24.1.1.1/396)	M	25.00		
1.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge. (a) 200 mm nominal size dia (CPWD DSR-2013 item no. 24.3.3/396 )	M	15.00		
1.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings& accessories etc. all complete, for all depths, as per direction of	M	10.00		



	Engineer-in-charge. (a) 200 mm nominal dia (CPWD DSR-2013 item no. 24.4.3/396)				
1.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge. (CPWD DSR-2013 item no. 24.5/397)	Cum	5.02		
1.6	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge. (CPWD DSR-2013 item no. 24.6/397)	Cum	0.38		
1.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge. (CPWD DSR-2013 item no. 24.7/397)	Cum	3.77		
1.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge. (CPWD DSR-2013 item no. 24.8/397)	Cum	1.09		
1.9	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c	Hrs.	36		

	disinfection of tube well, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge. (CPWD DSR-2013 item no. 24.12/398)				
1.10	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/casing pipe, removable as per requirement, all complete for bore well of: (a) 200 mm dia (CPWD DSR-2013 item no. 24.13.3/398)	No.	1		
1.11	Providing and fixing M.S. clamp of required dia to the top of casing/housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete. (a) 200 mm clamp (CPWD DSR-2013 item no. 24.14.3/398)	No.	1		
1.12	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I). (a) 200 mm dia (CPWD DSR-2013 item no. 24.15.3/398)	No.	1		
<b>2.0</b>	<b>Civil Work</b>				
2.1	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. (a) All kind of soil (CPWD DSR-2013 item no. 2.6.1/72)	Cum	105.90		
2.2	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not	M	60.00		

	<p>exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :</p> <p>(a) All kinds of soil (i) Pipes, cables etc. not exceeding 80 mm dia. (CPWD DSR-2013 item no. 2.10.1.1/73)</p>				
2.3	<p>Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. (CPWD DSR-2013 item no. 2.25/75)</p>	Cum	66.09		
2.4	<p>Extra for every additional lift of 1.5 m or part thereof in excavation /banking excavated or stacked materials. (a) All kinds of soil (CPWD DSR-2013 item no. 2.26.1/75)</p>	Cum	70.78		
2.5	<p>Carriage and disposal of surplus excavated earth by mechanical transport excluding loading, unloading and stacking upto all leads and lift beyond initial lead of 50 m lead etc. complete as per direction of Engineer-in-Charge. (initial lead of 50 m and loading, unloading and stacking included in the excavation basic items.)(Non-Schedule).</p>	Cum	174.19		
2.6	<p>Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work up to plinth level: (a) 1:4:8 (1 Cement: 4 Coarse sand: 8 graded stone aggregate 40 mm nominal size) (CPWD DSR-2013 item no. 4.1.8/ 85 )</p>	Cum	1.00		
2.7	<p>Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :</p>	Cum	3.23		

	(a) 1:2:4 (1 Cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) (CPWD DSR-2013 item no. 5.1.3/96)				
2.8	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : (a) 1:2:4 (1 Cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) (CPWD DSR-2013 item no. 5.2.3/96)	Cum	15.57		
2.9	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size). (CPWD DSR-2013 item no. 5.3/96)	Cum	2.87		
2.10	Centring and shuttering including strutting, propping etc. and removal of form for : (a) Foundations, footings, bases of columns, etc. for mass concrete (CPWD DSR-2013 item no. 5.9.1/97) (b) Walls (any thickness) including attached pilasters, buttresses plinth and string courses etc. (CPWD DSR-2013 item no. 5.9.2/97) (c) Suspended floors (CPWD DSR-2013 item no. 5.9.3/97) (d) Lintels, beams, plinth beams, girders, bressumers and cantilevers (CPWD DSR-2013 item no. 5.9.5/97)	Sqm	7.92		
		Sqm	140.69		
		Sqm	13.73		
		Sqm	0.95		
2.11	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. (a) Thermo-Mechanically Treated	Kg	1543.71		

	bars (CPWD DSR-2013 item no. 5.22.6/99)				
<b>3.0</b>	<b>Drainage</b>				
3.1	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : (a) 300 mm dia. R.C.C. pipe (CPWD DSR-2013 item no. 19.6.4/350)	M	60.00		
3.2	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design : (a) 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centring, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) : (i) With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 (CPWD DSR-2013 item no.	Each	2		

	19.9.1.1/352)				
3.3	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design : (a) With 20x20 mm square bar (CPWD DSR-2013 item no. 19.15.1/353)	Each	12		
3.4	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality (a) Square shape 450 mm internal dimensions (CPWD DSR-2013 item no. 19.19.1.2/354)	Each	3		
3.5	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design: (a) With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 (CPWD DSR-2013 item no. 19.28.1/356)	Each	4		
<b>4.0</b>	<b>Miscellaneous Work</b>				
4.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. (a) Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix) (CPWD DSR-2013 item no. 15.2.1/248)	Cum	2.97		
4.2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: (a) 1:1½:3 (1 Cement: 1½ coarse sand: 3 graded stone aggregate 20 mm nominal size) (CPWD DSR-2013 item no. 4.1.2/85)	Cum	2.97		
4.3	Providing and laying in position cement concrete of specified grade	Cum	5.25		

	<p>excluding the cost of centering and shuttering - All work up to plinth level:</p> <p>(a) 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)</p> <p>(CPWD DSR-2013 item no. 4.1.10/85)</p>				
4.4	<p>Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.</p> <p>(a) In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works</p> <p>(CPWD DSR-2013 item no. 10.25.2/180)</p>	Kg	89.12		
4.5	<p>Supplying and filling in plinth with Jamuna sand under floors, including watering, ramming, consolidating and dressing complete.</p> <p>(CPWD DSR-2013 item no. 2.27/75)</p>	Cum	1.32		
	Total				

**Amount in Words**