



BAIF Institute for Sustainable Livelihoods and Development
Lachhakadi, PO Gangpur, Vandsa, Navsari – 396580
Tel.: 02630 244005

Notice Inviting Tender

Tender notice no: BISLD/Integrated Sanitation/Toilet 01/2018–19

Date:17 January 2019

Sealed tenders in prescribed format in two parts (Techno-commercial bid & Price bid) are being invited from experienced & reputed civil contractors for **construction of toilets at villages Chondha & Kamalzari of Vandsa block, of district Navsari. Total 90 nos.**

Tender document price:₹500/- (Rupees five hundred only).

Period:18 January 2019, 09.30 am to 25 January 2019, 05.30 pm



BAIF Institute for Sustainable Livelihoods and Development
Lachhakadi, PO Gangpur, Vandsa, Navsari – 396580
Tel.: 02630 244005

Chapter1: Detailed Tender Notice & Conditions

Tender notice no.: BISLD/Integrated Sanitation/Toilet 01/2018–19

Date:17January 2019

Sealed tenders in prescribed format in two parts(Techno-commercial bid & price bid)are being invited from experienced & reputed civil contractors for **construction of Toilet** at **villages Chondha & Kamalzari of Vandsa block of District Navsari.**

1. Scope of work

- 1.1 Name of work: Construction of toilets at village Chondha & Kamalzari of Vandsa block of Navsari district.
- 1.2 Construction of Plain Cement Concrete & RCC structure (as per detailed bill of quantity enclosed).
- 1.3 The above work shall be carried out as per the technical specification mentioned in Chapter2 of this tender document.

2. Availability of tender documents

2.1 The tender documents can be obtained from the office of BAIF Institute for Sustainable Livelihoods and Development (BISLD), Lachhakadi, PO Gangapur, Vandsa, Navsari, Gujarat – 396580 on payment of ₹500/- (Rupees Five hundred only) in cash or demand draft drawn from any scheduled bank favoring “BAIF Institute for Sustainable Livelihoods and Development ”and payable at Vandsa, Navsari district. Tender can also be downloaded from www.baif.org.in.

Tender not submitted with cost of tender documents as prescribed above shall be considered as invalid and shall be rejected.

2.2 All other terms and conditions shall remain the same as stipulated in the tender notice. Further corrigendum/addendum etc if any, will be made available on our website only.

3. Rate to be quoted

The bidders are required to quote their percentage rate and total cost both in figures and words in the “Price Bid” format enclosed in Annexure-II.The quoted rate shall be inclusive of all prevailing taxes and duties. In case of change in the taxes by the Government during the contract period, the same shall be considered and will be paid extra.

The bidder will be evaluated on the basis of lowest quoted percentage rate in the price bid. The rate quoted in the price bid should be in line with the total value quoted in the BOQ. If percentage rate quoted are not workable, committee reserves right to reject tender

Tenders containing over writing, corrections without authentication with signature on the pages of “Price Bid” will be liable for rejection. In case there is any discrepancy between figures and words, then the amount quoted in words will be considered for evaluation.



In case the quoted percentage rate is abnormally lower than the estimate, BISLD reserves the right to call justification from bidder. Further the bidder may have to submit a performance guarantee in form of bank guarantee towards the differential amount.

4. Earnest Money Deposit (EMD)

4.1 EMD of prescribed amount must be submitted in the form of demand draft/bankers' cheque / pay order drawn in favor of 'BAIF Institute for Sustainable Livelihoods and Development' and payable at Vansda, Navsari district along with the bid. Cheques, bonds, guarantee bonds and govt. securities (stock certificates, bearer bonds, promissory notes and cash certificates) will not be accepted towards the earnest money. No interest will be paid on EMD. EMD of the unsuccessful bidders shall be refunded/returned immediately after the final evaluation of the tender and issue of the work order to the successful bidder.

4.2 The EMD amount shall not bear any interest. In case the awarded bidder denies to accept the work order their EMD shall be forfeited.

4.3 Tender without EMD shall be summarily rejected.

4.4 EMD of successful bidder will be converted into security deposit to be retained without interest for a period of 12 (twelve) months after date of issue of completion certificate. In case of submission of bank guarantee towards EMD, the successful bidder will have to extend the validity period of the guarantee till the end of 12(twelve) months after date of issue of completion certificate.

5. Submission of tender

5.1 Tenders shall be submitted in sealed envelopes only.

5.2 Envelope 1 (approx.30 cm x 25 cm) should be sealed and super scribed "**Techno-Commercial Bid for construction of toilets at villages Chondha & Kamalzari (notice no.: BISLD/Integrated Sanitation/Toilet 01/2018-19)**". Contact details of the bidder should be stated on front side bottom left of the envelope. This envelope should contain

- a. Techno-commercial bid filled as per format with signature/seal on all pages.
- b. Enclosures/supporting documents as required.
- c. EMD demand draft

5.3 Envelope 2 (approx. 30 cm x 25 cm) should be sealed and super scribed "**Price Bid for construction of toilets at villages Chondha & Kamalzari (notice no.: BISLD/Integrated Sanitation/Toilet 01/2018-19)**". Contact details of the bidder should be stated on front side bottom left of the envelope. This envelope should contain Price bid as per format with signature/seal on all pages.

5.2 Envelope 1 and Envelope 2 should be put inside Envelope 3 (approx.40 cm x 30 cm). Envelope3 should be sealed and super scribed "**Offer for construction of toilets at villages Chondha & Kamalzari**". Contact details of the bidder should best at be on front side bottom left of the envelope.

5.3 Envelope 3 should be submitted/sent to the following.

**The Addl. Chief Programme Executive
BAIF Institute for Sustainable Livelihoods and Development
Lachhakadi, PO Gangpur, Vansda, Dist.Navsari-396580**

5.4 Last date of submission: 25 January 2019 up to 05.30 pm.



5.5 Submission “by hand” is preferred. However, the bidder may options to send the offer by Speed post /Courier.

5.6 Tenders received after the deadline will not be accepted. It is the responsibility of the bidder to ensure and confirm that the tender is received in time.

5.7 Queries pertaining to tender, if any, may be clarified by contacting Mr. V.U. Patil Thematic Prog. Exec. during office hours at the number given above.

5.8 Interested bidders are advised to visit the site at own cost and familiarize themselves with the site conditions, concerned areas and to go through the terms and conditions of the tender document before submission.

5.9 Tenders not received in prescribed form will be liable to be summarily rejected.

5.10 Tenders not adhering to the terms and conditions are liable to be rejected.

5.11 BISLD reserves the right to accept or reject any or all tenders without assigning any reason thereof.

5.12 The tender documents have to be signed by the bidder on each page and the terms and conditions must not be altered, failing which the tender will be rejected.

5.13 Tender form containing ‘over written’ or ‘erased’ rate or rates and amount not showing figures and words in English will be liable to rejection.

5.14 Tender containing clerical or arithmetical mistakes may be rejected.

5.15 Any request from the bidder in respect of additions, alterations, modifications etc. of either terms or conditions or rates of his tender after opening of the tender may lead to rejection of tender.

5.16 Pre-bid meeting: A pre-bid meeting is scheduled on 21.01.2019 at 11 am at BAIF Institute for Sustainable Livelihoods and Development (BISLD), Lachhakadi, PO Gangpur, Vansda, Navsari, Gujarat–396580 for any clarifications pertaining to offer, specifications, requirements, site etc. Interested bidders may attend the same.

6. Tender opening

6.1 Techno-commercial bids shall be opened in the presence of the designated committee of BISLD. Price bids of bidders whose techno-commercial bids are found acceptable will opened at a later date in the presence of the designated committee. Tender opening dates shall be conveyed to the bidders. Interested bidders may be present during opening.

6.2 BISLD reserves the right not to accept the lowest offer. BISLD also reserves the right to cancel the tender. No claims of any bidder in this regard shall be entertained.

6.3 The validity of the offer shall be 180 days from the date of submission of the tender.

7. Date of commencement of work

7.1 The successful bidder should commence the work within 10 days after issuing of the work order.

8. Contract period

8.1 The contract period shall be for 30 days from the date of issuing the work order.

9. Jurisdiction

9.1 The jurisdiction shall be Vansda.



10. Salient features of the bid

Sr.	Particular	Details
1	Tender notice no.& date	BISLD/Integrated Sanitation/Toilet 01/2018-19
2	Name of the work	Construction of toilets at villages Chondha & Kamalzari, 45 nos. respectively.
3	Cost of tender document	₹500/-(Rupees five hundred only)
4	Earnest Money Deposit	₹50000/- (Rupees Fifty thousand only)
5	Availability of tender document	BAIF Institute for Sustainable Livelihoods and Development, Lachhakadi, PO Gangpur, Vansda, Navsari-396580
6	Period of issue	18 Jan 2019-25 Jan 2019
7	Date of submission	Till 25 Jan 2019, 5.30 pm
8	Period of contract	60 days from the issue of work order
9	Validity of offer	180 days from the date of submission

11. Eligibility criteria

11.1 The bidder should be an established contractor/firm with experience in civil construction works. The bidder should have undertaken three works of similar nature (as given in scope in tender) in the last three years with each work amounting to more than ₹5 lacs.

11.2 The bidder should have an annual turnover of not less than ₹10 lacs for the preceding three years (2015-16, 2016-17, 2017-18).

11.3 Documents in support of above clauses 11.1 and 11.2 should be enclosed with the techno-commercial bid. Submission of any incorrect/forged/false documents will attract legal action including rejection of tender and cancellation of contract at the risk and cost of the bidder.

11.4 The bidder should have paid the tender document cost of ₹500/-and the offer should be accompanied by the EMD of specified amount.

12. Evaluation of the bids

12.1 Two bid evaluation system shall be followed.

13. Area of works

13.1 The area of works is located in Vansda block of Navsari district. The bidders are advised to visit the site at own cost to acquaint themselves with the working conditions, soil quality etc. before submitting the tender. BISLD will provide the exact location of the construction site.

14. Award of the contract

14.1 After evaluation of the received offers through two bid process, the contract may be awarded to the L1 bidder.

14.2 Notwithstanding the above, BISLD reserves the right not to award the contract to the L1 bidder and may cancel or reject any part or whole of the tender without assigning any reasons what so ever. The bidders shall not be entitled to any claims on account of the incidental expenses incurred.

14.3 Acceptance of the bid shall be intimated through letter of intent/work order. In turn the bidder has to counter sign and return the same as token of acceptance.

14.4 An agreement may be entered between BISLD and the selected contractor for execution of work.



15. Work schedule, maintenance of record and measurement

15.1 The successful bidder will draw work schedule of each activity along with time schedule of completion of work. The work schedule is to be drawn in consultation with Thematic programme Executive BISLD. However, the quantities set out in the schedule of items are only the estimated quantities of the works and are subject to alterations /modifications as per the instructions of the engineer.

15.2 The engineer may make any variations in the quantity of the works to be performed for what so ever reason in the interest of BISLD sponsor and community as per the following.

- a. Increase or decrease the quantity of any work included in the contract
- b. Omit any such work
- c. Change the levels, lines, positions and dimension so any part of the works
- d. Execute additional work of any kind necessary for the completion of the works and no such variation shall in any way vitiate or invalidate the contract but the value (if any) of all such variations shall be taken into account in ascertaining the amount of the contract price.

15.3 The monitoring of the work carried out will be recorded in a Measurement Book which shall be maintained by the concerned engineer. The engineer shall ascertain and determine the value of work done by measurement. For the purpose he/she may give notice to the contractor for measurement of any portion of the work. The contractor shall forth with attend or send a qualified agent to assist the engineer or the engineer's representative in seeking such measurement and shall furnish all particulars required by either of them Should the contractor not attend or neglect or omit to send such agent, then the measurement made by the engineer or approved by him shall be taken to be correct measurement of the works. The engineer will have the right to inspect the scaffolding, centering and shuttering made for the work and reject partly or fully such structures if found defective.

16. Payment terms

16.1 Payment of running account bills shall be released to the contractor through RTGS/NEFT subject to submission of details of bank account.

16.2 85% of the RA bill shall be released depending upon the progress of work and subject to inspection and verification made by BISLD. After verification and certification Thematic Programme Executive BISLD shall forward the same to Accounts Department for consideration of payment.

16.3 Necessary pre-inspection of the materials will be made by the engineer in order to ascertain the quality and conformity with standards.

16.4 10% of the payment will be made on completion of the job in all respect, issue of work completion certificate and fulfillment of the liabilities by the contractor.

16.5 Balance 5% of payment will be released on completion of defect liability period of 12 months after issue of completion certificate.

16.6 No payment will be made for benchmarks, level pillars, profile, benching, ground leveling or any temporary works which are required for successful completion of work.

16.7 For construction, user group contribution is mandatory in the form of unskilled labour work. The contractor has to ensure the involvement of user community to this extent in unskilled labour work.



17. Penalties

17.1 Liquidated damages: If the contractor fails to successfully complete the work as per the specification within the stipulated time period mentioned in the work order the necessary liquidated damage will be deducted from the final bill. For the purpose of liquidated damage deduction, the total value of actual work done against the work order will be considered. The rate of liquidated damage will be 0.5% (half percent) per week subject to a maximum of 5% of the total value of work done. No liquidated damage is applicable if the completion period of the work gets extended beyond the stipulated period of the contract due to no fault of the contractor Decision of BISLD shall be binding and final in this regard.

17.2 Forfeiture: In case the successful bidder fails to take up the work after issuance of work order BISLD may at its discretion impose upon any or all of the following penalties.

- a. Cancellation of work order. In case of cancellation the recovery of extra cost incurred by BISLD for getting the work done through other sources/agencies which may be without any notice to the contractor, will be recovered from the contractor.
- b. For feature of earnest money/security deposit/bank guarantee wholly or partly without notice to the contractor.
- c. Blacklisting of the contractor.
- d. Recovery from any of the other present/future pending bills of the contractor.

18. Price escalation

18.1 No price escalation during the period of validity of the offer shall be accepted by BISLD.

19. Signing of agreement

The successful bidder shall be required to sign an agreement with BISLD within 10 days of the issue of work order/LOI or within such extended period as may be specified In case the contractor fails to sign the agreement within the stipulated time, BISLD will have right to terminate the contract and forfeit the EMD of the bidder and the bidder stands debarred from future participation in any tender of BISLD.

20. Obligation of the contractor

20.1 The contractor will commence and complete the work as stipulated in the tender document.

20.2 The contractor will have to make own arrangements for travelling, boarding, lodging etc.

20.3 The job cannot be sublet in part or in whole without the written consent of the Addl. Chief Programme Executive, BISLD.

20.4 The contractor will comply with the directions of BISLD from time to time.

20.5 All security arrangement for the materials to be utilized in the project shall be done by the contractor till completion and handover.

20.6 The contract assumes a proper degree of skill on the part of the contractor and all his workmen employed. The contractor shall consult with engineer when ever in his judgment variation in the work of construction or in the quality of the materials specified would be beneficial or necessary to fulfill the guarantees called for in the contract Such variations shall be carried out by the contractor only when authorized by the engineer in writing The request for such changes shall be made before the contract agreement is executed otherwise guarantees will be understood to hold good for work



As specified in the contract and any variation necessary to fulfill such guarantee shall be carried out by the contractor at his own cost.

20.7 The guarantee period for all the civil work sand equipments /accessories etc. should not be less than 01(one) year from the date completion of the work. All the documents related with guarantee to be submitted to BISLD.

20.8 The contractor shall report occurrence of any accident sat the work site including particulars of his employees involved to the concerned authorities and effect payment of compensation as per the Workmen's Compensation Act as amended from time to time within the prescribed time limit.

20.9 The contractor shall at his own cost, observe, perform and comply with the provisions of the Contract Labour (Abolition and Regulation) Act,1971,and the rules made there under as amended from time to time. The contractor shall have to observe, perform and discharge his/their obligations under the said act and BISLD shall be entitled to recover from the contractor any cost of expenses that it may have to incur or suffer on account of contractor's failure.

20.10 The material to be supplied by the contractor shall be as per IS specification. All the materials needed for the work must be approved by the engineer and brought to the site in bulk.

20.11 If any work either in temporary or permanent nature or necessary to complete the work in all respect but not mentioned in the tender shall have to bed one without extra cost.

20.12 The contractor has to arrange the adequate lighting arrangement for the work wher ever necessary at his own cost.

20.13 After the work is finished, all surplus material sand temporary structures should be removed from the site of work such as brick bats, aggregate, mixing platform etc. The site and the premises left to be neat and clean.

20.14 The contractor shall give or provide all necessary supervision during the execution of the work. The contractor or his authorized representative is to be constantly on the work and shall give his whole time for the supervision of the same. Such authorized representative shall receive direction and instruction from the engineer on behalf of the contractor. Site meeting will be called at regular interval and the contractor or his authorized representative will be required to be present in such meetings to discuss progress of the work and other matters including any deviation from drawing or specification.

20.15 The contractor shall comply with all prevailing safety and environment all laws.

21. Supplementary items

21.1 The item so the work not covered in the specific schedule of items or BOQ will be considered as supplementary items. The rate of the supplementary items of work will be determined in order of precedence as given below.

- a. The rate will be derived wherever possible from the rate of allied items of work quoted by the contractor in the specific schedule of probable items of work plus the contractual percentage.



- b. The rate of the items which cannot be derived by any of the above process shall be determined from the market rate of the materials and labour plus profit and over head charges. However, the profit and over head charges taken together shall constitute 10% of the cost of material, sand, labour.

22. Completion certificate

The work shall be said to be completed on the basis of certification of the user department and subject to completion of all sort of laboratory tests as instructed by the engineer and on receiving written undertaking from the contractor to finish any outstanding work during the period of maintenance/defect liability period, the concerned engineer shall issue a Certificate of Completion in respect to of the work. The period of maintenance of the works shall commence from the date of such certificate.

23. Tax deducted at source

Income tax and other taxes as applicable shall be deducted at source, at the rate prescribed in the Income Tax Act and or other Acts, from the gross value of each bill.

24. Legal and miscellaneous

The contractor shall be fully responsible to comply with all his statutory obligations as employer towards Employees Provident Fund Act, 1952, Employees State Insurance Act, 1952, Employees Deposit Linked Benefit Act, 1961, Minimum Wages Act, 1948, Bonus Act, 1965, Gratuity Act, 1972 etc. and all other such obligations/ liabilities as per applicable statutory provisions/law and Government notifications in respect of their labour engaged by them for the job undertaken under the contract, and will take full liability on this account. BISLD will not take any financial liability on this account. In the event of failure of the contractor to comply with the above, BISLD shall be entitled to recover the amount by deduction from any amount payable to the contractor under the contract, including security deposit.

25. Deviation

Deviations sought by the bidder whether they are commercial or technical must only be given within the schedule, prescribed for them. Any willful attempt by the bidders to camouflage the deviation by giving the covering letter or in any other documents than the prescribed schedules may render the bid itself non-responsive. Any in complete tender or conditional tender received shall be liable for rejection.

26. Modification of contract

BISLD reserves the right to modify the contract from the point of view of smooth execution. The same shall be conveyed to the contractor.

27. Force majeure

27.1 The contractor shall have no claim what so ever against BISLD for any loss/damage caused to the contractor by reason of war riot, disturbance pestilence/epidemic sickness, strike lock-out, earthquake, fire, storm, flood, explosion, any change in the nature of deposits, breakdown



At plant or machinery for what ever reason, failure/restriction of electrical or other power, act of God etc.

27.2 Either party affected by the force majeure will provide notice of happenings of any such eventuality to the other party within 7 days from the date of occurrence and failure will not give any benefit.

27.3 The contractor shall resume the work as soon as practicable after such eventuality has ceased to exist.

27.4 If the performance in whole or part of any term/obligation under the contract is prevented or delayed by any such eventuality for a period exceeding 7 days of escalation of above events the contract may be terminated at the discretion of BISLD.

28. Arbitration

Any dispute or difference under or arising out of or in respect of the agreement/accepted contract may be settled mutually. If not settled mutually, it shall be referred to the sole Arbitrator, a person appointed by BISLD and his decision in the matter will be final and binding on the both parties. The arbitration shall be carried out as per Arbitration Act, 1996 and Rules made there under as amended from time to time.



Chapter2: Technical Specifications

Section1:General

1. For all items of work described in the bill of quantities, the work shall be carried out strictly in accordance with description in general specifications, particular specification and drawings. The description, drawing and specifications shall be taken complementary to each other and shall form part of this contract.

2. The percentage rates quoted shall be deemed to include all necessary hardware, tools, plants, props, material, labour, duties, taxes, insurance etc. all needed for successful work completion as per scope.

3. Scope of work

3.1 Construction of Plain Cement Concrete & RCC structure for up-stream & down-stream protection to the structure (as per detailed drawing and bill of quantity enclosed).

3.2 Although all the details of construction have been by and large covered in these documents, any item or detail of construction not specifically covered but obviously implied and essential to consider civil work and all internal services complete and functional, shall be deemed to have been covered in the item rate quoted. The bidder may however, consider a minimum level of specifications conforming to IS Code to cover these missing details.

4. Curing

4.1 Exposed surfaces of all cement works viz. cement concrete, brick work, flooring, plastering, pointing and the like shall be cured by keeping surface adequately and continuously wet as directed by the engineer for at least seven days. Cost for this shall be deemed to be included in the percentage quoted against the respective schedule.

5. Bar chart

5.1 The contractor shall submit a bar chart to engineer, BAIIF for the work in contract. The bar chart shall be submitted by contract or within one week of acceptance of contract. Bar chart as submitted shall be scrutinized by the engineer. Mutually agreed bar chart shall be finalized within three days of submission by the contractor. The contractor shall carry out the changes as suggested by engineer. The mutually agreed bar chart shall be signed by contractor and engineer. This shall be binding on contractor for progressing the work for completion by due date.

Section2: Excavation, earthwork

1.Scope:This section covers the works specification of earth work in excavation in all kinds of soils including murrum, hard murrum, soft rock (without blasting), hard rock (without blasting), rock (with blasting), filling excavated earth in plinths, sand filling in plinth, rubble soling and brick on edge soling. Engineer will furnish the necessary drawing showing the areas to be excavated, filled, sequence of priorities etc. Contractor shall strictly follow such drawings.



2. General

2.1 Contractor shall provide all tools, plants, instruments, qualified supervisory personnel, labour, materials and temporary works, consumable sand everything necessary whether or not such items are specifically stated here in for completion of the work.

2.2 Contractor shall set properly all line sand establish levels for various works such as earth work in excavation in foundation of toilet etc. The area to be excavated/filled shall be cleared of fences, trees, plants, logs, slumps, bush, vegetations, rubbish slush etc. and other objectionable matter. If any roots or stumps of trees are found during excavation ,they shall also be removed. The materials removed shall be burnt or disposed off as directed by engineer. Where earth fill is intended, the area shall be stripped of all loose/soft patches, top soil containing deleterious matter/materials before fill commences. Final cleaning shall be done with removal of all rubbish up to the distance of 30 mall around outside the periphery of the structure.

3. Mode of measurement

3.1 Backfilling, plinth filling etc. with borrowed earth will be paid for under specified items. The quoted rate shall include all operations such as clearing, excavation, lead and transport, fill, compaction etc. as specified. Actual quantity of consolidated filling shall be measured and paid for in cubic metres irrespective of lead and lift.

4. Disposal of surplus soil

4.1 Surplus soil/earth if any shall be disposed off within the site up to the quantity as directed by the engineer and the same shall be spread out evenly for which no extra payment shall be made. The balance surplus quantity shall be removed away from site. The cost of this removal shall be deemed to be included in the quoted rates/percentages.

Section3: Cement concrete work

1. Applicable codes

1.1 The following codes and standards are made apart of the specifications. All standards, codes of practices referred to here in shall be the latest edition including all applicable official amendment sand revisions. In case of discrepancy between this specification and those referred to her in, this specification shall prevail.

Materials:

IS 269:Specification for ordinary, rapid hardening and low heat Portland cement

IS455:Specification for Portland blast furnace slag

IS1489: Specification for Portland Pozollana Cement

Equipment:

IS1791:Specification for batch type concrete mixers

IS2505:Specification for concrete vibrator simme rsiontype



Codes of Practice:

IS456: Code of practice for plain and reinforced concrete

IS3385: Code of practice for measurement of civil engineering works

Above mode of measurements shall be applicable only if it is not given specifically in the tender document.

2. Quality

2.1 The quality of materials, method and control of manufacture and transportation of all concrete work irrespective of mix, whether reinforced or otherwise shall conform to the applicable portions of this specification. Engineer shall have the right to inspect the source/s of materials/the layout and operation of procurement and storage of materials, the concrete batching and mixing equipment and the quality control system. Such an inspection shall be arranged and engineer's approval obtained, prior to starting of concrete work.

3. Materials

3.1 Cement: Unless otherwise specified the cement shall be ordinary Portland cement in 50kg bags of 53 grade as applicable. The use of bulk cement will be permitted only with the approval of Engineer-in-Charge. For this, the contractor will be required to construct proper storage facility. Only Ultratech/Ambuja PPC or 53 grade cement should be used by contractor.

3.2 Aggregates: Unless otherwise the aggregates shall conform to the requirements as per IS 383:1970. Aggregate in general design at both fine and coarse in materials used in the manufacture of concrete. Fine aggregate is aggregate all of which passes through 4.75 mm sieve. Coarse aggregate is aggregate most of which is retained on 4.75 mm sieve.

All fine and coarse aggregates proposed for use in the work shall be subject to Engineer-in-Charge approval and after specific materials have been accepted the source of supply of such materials should not be changed without prior approval of Engineer-in-Charge.

All coarse and fine aggregates shall be stacked in stock separately in stock piles in the material yard near the work site in bins properly constructed to avoid intermixing of different aggregates. Contamination with foreign materials and earth during storage and heaping the materials shall be avoided. The aggregate must be of specified quality not only at the time of receiving at site but more so at the time of loading in to mixer. Rackers shall be used for lifting the coarse aggregates from bins or stock piles. Coarse aggregate shall be piled in layers not exceeding 1.20m height to prevent coning or segregation. Each layer shall cover then tire area of the stock pile be for succeeding layers are started. Aggregates that have becomes aggregated shall be rejected.

Coarse aggregate for concrete, except as noted above and for other than light weight concrete shall conform IS383. This shall consist of natural or crushed stone and gravel and shall be clean and free from elongated, flaky or laminated pieces, adhering coatings, clay lumps, coal residue, clinkers slag, alkali, mica, organic matter or other deleterious matter.



Coarse aggregate shall be graded in both cases, the grading shall be within the following limits.

The pieces shall be angular in shape and shall have granular or crystalline surfaces. Mica and shale, if present, shall be only in such quantities that will not, in the opinion of engineer affect adversely the strength and/or durability of concrete. The maximum size of coarse aggregate shall be in no case greater than $\frac{1}{4}$ of the minimum thickness of the member, provided that the concrete can be placed without difficulty so as to surround all reinforcement thoroughly and fill the corners of the form. Plums above 150 mm and up to any reasonable size can be used in plain mass concrete work of large dimensions up to a maximum limit of 20% of volume of concrete when specifically approved by Engineer-in-Charge. For heavily reinforced concrete members the nominal maximum size of the aggregate shall be 5 mm less than the minimum clear distance between the reinforcing main bars or 5 mm less than the minimum cover to the reinforcement whichever is smaller. The amount of fine particles occurring in the free state or as loose adherent shall not exceed 1% when determined by laboratory sedimentation tests as per IS2386. After 24 hours immersion in water, a previously dried sample shall not have gained more than 10% of its weight in air, as determined by IS2386.

3.3 Sand

Sand shall be clean and free from dust or organic foreign matter and its grading shall be within the limits. Sand from Tapi river should be used for construction work.

3.4 Water

Unless otherwise stated the water quality and requirements for concrete will be in conformity with IS456:1978. Water used for both mixing and curing shall be free from injurious amounts of deleterious materials. Potable waters are generally satisfactory for mixing and curing concrete. Water cement ratio should be 1:0.5.

3.5 Reinforcement steel

All MS reinforcing bars shall conform strictly to IS432:1982 and high strength deformed steel (Torq steel) bars should conform to IS1786:1985. All reinforcement shall be clean and free from loose mill scales, cost, loose rust, coats of paints, oil or other coatings which may destroy or reduce bond.

All reinforcing bars shall conform to drawing and dimensions shown on the drawing or where required to carry out in tent of drawings or specifications. Reinforcement shall not be bent or straight needing manner injurious to the materials.



Bars containing cracks or splits shall be rejected. They shall be bent cold, except bars of over 25mm in diameter which may be bent hot if specifically approved by the Engineer-in-Charge. Bars which depend for their strength on cold working shall not be bent hot. Bars bent hot shall not be heated beyond cherry red colour (nor exceeding 845 Deg.C) and after bending the same shall be allowed to cool slowly without quenching. No reinforcement shall be bent when in position in the work without approval, whether or not it is partially embedded in hardened concrete. Bars with kinks or bends not shown on drawings shall not be used.

Reinforcing bars supplied bent or in coils, shall be straightened before they are cut to size. Straightening of bars shall be done in cold and without damaging the bars. This is considered as apart of reinforcement bending fabrication work.

3 **Mixing of cement concrete**

The quantities of cement shall be determined by weight. Ordinary Portland cement shall be taken to weigh 1442kg/m³. The quantities of fine and coarse aggregates shall be determined either by volume for ordinary concrete and by weight for controlled done. The proportions of volume or weights specified are based on dry aggregates, due allowances to be made for bulking or variation in weight of aggregates according to IS 2386 (Part-III):1963.

All concrete shall be mixed in a mechanical mixer until there is uniform distribution of the materials and the mass is uniform in colour and consistency but in no case shall the mixing be done for less than two minutes. Hand mixing shall not be allowed for any concreting work on the job.

4 **Mix design**

All concrete in the works shall be of design mix as defined in IS 456 unless it is nominal mix concrete such as 1:2:4, 1:3:6, 1:4:8 or 1:5:10.

It shall be very clearly understood that whenever the class of concrete such as M20 is specified it shall be the contractor's responsibility to ensure that minimum crushing strength stipulated for the respective class of concrete is obtained at works. The maximum total quantity of aggregate by weight per 50kg of cement shall not exceed 450 kg except when otherwise specifically permitted by Engineer-in-Charge.

5 **Proportioning, consistency, batching and mixing of concrete**

5.2 Aggregate: The proportions which shall be decided by conducting preliminary test shall be by volume. These proportions of cement, fine and coarse aggregates shall be maintained during subsequent concrete mixing. The supply of properly graded aggregate of uniform quality shall be maintained over the period of work, the grading of aggregates shall be controlled by obtaining the coarse aggregate in different sizes and blending them in the right proportions. The different sizes shall be stocked in separate stockpiles. The grading of coarse and fine aggregates shall be checked frequently as possible as determined by engineer, to ensure maintaining of grading in accordance with the samples used in preliminary mix design. The material shall be stock piled well in advance of use.

5.3 Cement: The cement shall be measured by volume in normal cases. However, in case of central weight batching plants, cement may be weighed for each batch if so desired by Engineer-in-Charge.



5.4 Water: Only such quantity of water shall be added to the cement and aggregates in the concrete mix as to ensure dense concrete, specified surface finish, satisfactory workability, consistent with the strength stipulated for each class of concrete. The water added to the mix shall be such as not to cause segregation of material or the collection of excessive free water on the surface of the concrete. The water cement (W/C) ratio is defined as the volume of water in the mix (including the surface moisture of the aggregates) divided by the volume of cement in the mix. The actual water cement ratio to be adopted shall be determined in each instance by the contractor and approved by the Engineer-in-Charge.

The W/C ratio specified for use by engineer shall be maintained. The contractor shall determine the water content of the aggregates as frequently as directed by engineer as the work progress and as specified in IS2386 (Part-III) and the amount of water added at the mixer shall be adjusted as directed by engineer so as to maintain the specified W/C ratio. To allow for the variation in volume of aggregates due to variation in their moisture content suitable adjustments in the volume of aggregates shall also be made.

6 Curing, protecting, repairing and finishing

6.2 Curing

All concrete shall be cured by keeping it continuously damp for the period of time required for complete hydration and hardening to take place. Preference shall be given to the use of continuous sprays or ponded water continuously saturated covering of sacks, canvas, hessian or other absorbent materials, or approved effective curing compounds applied with spraying equipment capable of producing a smooth, even textured coat. Extra precautions shall be exercised in curing concrete during cold and hot water as outlined here in after. The quality of curing water shall be the same as that used for mixing concrete.

Certain types of finish or preparation for over laying concrete must be done at certain stage of the curing process and special treatment may be required for specific concrete surface finish.



Curing of concrete made of high alumina cement and super-sulphated cement shall be carried out as directed by engineer.

Fresh concrete shall be kept continuously wet for a minimum period of 10 days from the date of placing of concrete following a lapse of 12 to 14 hours after laying of concrete. The curing of horizontal surfaces exposed to the drying winds shall however begin immediately after the concrete has hardened.

Water shall be applied uniformly to concrete surfaces within 1 hour after concrete has set. Water shall be applied to formed surfaces immediately upon removal of forms. Quantity of water applied shall be controlled so as to prevent erosion of freshly placed concrete.

Whenever, by the judgment of engineer, it may be necessary to omit the continuous spray method, a covering of clean sand or other approved means such as wet gunny bags which will prevent loss of moisture from the concrete, may be used. No type of covering will be approved which would stain or damage the concrete during or after the curing period. Covering shall be kept continuously wet during the curing period.

Surface coating type compounds shall be used only by special permission of engineer. Curing compounds shall be liquid type white pigmented. Other curing compounds shall be used on surfaces where future blending with concrete, water or acid proof membrane or painting is specified.

All equipment and materials required for curing shall be on hand and ready for use before concrete is placed.

6.3 Protecting fresh concrete

Fresh concrete shall be protected from defacements and damage due to construction operation by leaving forms in place for an ample period as specified later in this specification. Newly placed concrete shall be protected by approved means such as tarpaulins from rain, sun and winds. Steps as approved by engineer shall also be taken to protect immature concrete from damage by debris, excessive loading, vibration, abrasion or contact with other materials etc. that may impair the strength and / or durability of the concrete. Workmen shall be warned against and prevented from disturbing green concrete during its setting period. If it is necessary that workmen enter the area of freshly placed concrete, engineer may require that bridges be placed over the area.

6.4 Repair and replacement

Immediately after the shuttering is removed, the surface of concrete shall be very carefully inspected and all defective areas called to the attention of engineer who may permit patching of the defective areas or also reject the concrete unit either partially or entirely. Rejected concrete shall be removed and replaced by contractor at no additional expense. Holes left from bolts etc. shall be filled up and made good with mortar composed of one part of cement to one and half parts of sand passing 2.36 mm sieve after removing any loose stones adhering to the concrete and shall be finished as described under the particular items of work.

Superficial honeycombed surfaces and rough patches shall be similarly made good immediately after removal of shuttering in the presence of engineer and superficial water and air holes shall be



filled in. The mortar shall be well worked in to the surface with a wooden float. Excess water shall be avoided. Unless instructed otherwise by engineer, the surface of the exposed concrete placed against shuttering shall be rubbed down immediately on removal of shuttering to remove fine or other irregularities and necessary care being taken to avoid damage to the surface. Surface irregularities shall be removed by grinding.

For BAIF Institute for Sustainable Livelihoods and Development



BAIF Institute for Sustainable Livelihoods and Development
Lachhakadi, PO Gangpur, Vansda, Navsari – 396580

Annexure I



Tel.: 02630 244005

Techno-Commercial Bid

Tender notice: BISLD/Integrated Sanitation/ Toilet 01/2018 – 19, dated 17 January 2019

Construction of toilets at Chondha & Kamalzari villages, Vansda block, Navsari district

Sr.	Particular	Information by bidder
1	Name of the bidder	
2	Address of the bidder	
3	Contact person, number and email	
4	EMD DD no., date, bank, amount	
5	Whether experience certificate is enclosed.(Work completion certificates of 3 works must be enclosed as per eligibility criteria given in chapter1, clause11.1)	
6	Whether documentary proof of annual turn over is enclosed. (As per eligibility criteria given in chapter1,clause11.2) (IT returns /P&L/ Balance sheet /auditor's report of three years	
7	Permanent Account Number (PAN) (Enclose copy)	
8	GST registration no. (Enclose copy)	
9	Certificate of incorporation / registration (Enclose copy)	
10	Whether the bidder is an employee or a relative of employee working in BISLD. If yes, please mention the name, designation and department.	
11	Whether the bidder has visited the site and acquainted with Specified work in the area Extent of work Labour related local conditions Other relevant local conditions	

Date:

Signature with seal of bidder



BAIF Institute for Sustainable Livelihoods and Development
Lachhakadi, PO Gangpur, Vandsa, Navsari – 396580
Tel.: 02630 244005

Price Bid

Tender notice: BISLD/Integrated Sanitation/ Toilet 01/2018 – 19, dated 17 January 2019

Construction of toilets in Chondha & Kamalzari villages, Vandsa block, Navsari district

Sr.	Description of work	Unit cost (₹)	Percentage above / below unit cost	All inclusive unit cost (₹)	Qty. (Nos.)	Total cost all inclusive (₹)
1.	Construction of toilets in Chondha & Kamalzari villages, Vandsa block, Navsari district (As per bill of quantity in Annexure IV)				90	

Total cost all inclusive (Rupees in words): _____ only.

Date:

Signature with seal of bidder



Undertaking

Annexure III

Date: 25 January 2019

To

The Addl .Chief Programme Executive
BAIF Institute for Sustainable Livelihoods and Development
Lachhakadi, PO Gangpur, Vansda, Navsari–396580

Ref.: Tender notice: BISLD/Integrated Sanitation/ Toilet 01/2018 - 19
Construction of toilets at Chondha & Kamalzari villages, Vansda block, Navsari district

Dear Sir,

In response to the tender invited by you, I/We have examined the notice, conditions, specifications and terms of the contract and I/We agree to abide by all instructions in these documents attached here to and here by bind myself/ourselves to execute the work as per schedule stipulated in the tender notice.

I/We further agree to sign and execute all agreements/bonds as may be required by BISLD to a bid by the all conditions of the contract and to carry out all work as per specifications, failing which, I/We shall have no objection for the for feature of the earnest money/security money deposited with BISLD.

I/We also undertake that I/We have not been blacklisted by any entities anytime.

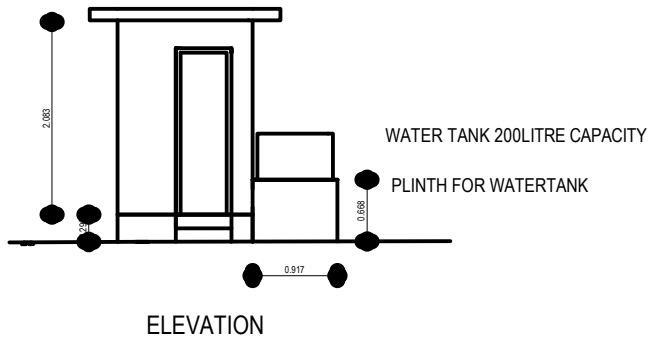
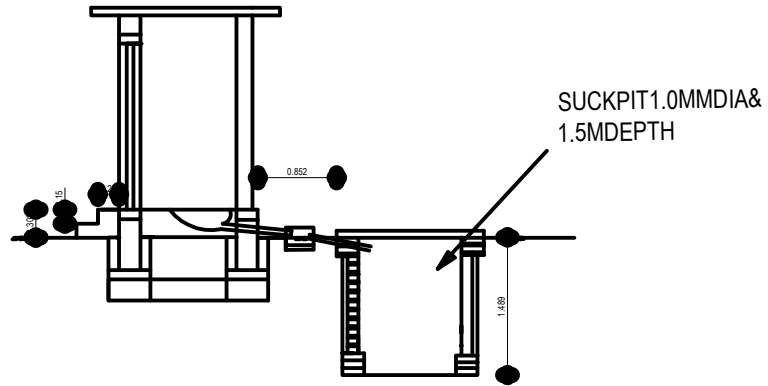
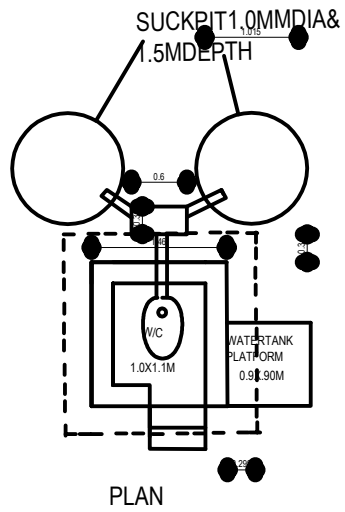
I/We enclose here with the required documents.

Sincerely yours,

Signature of bidder with seal

Encl.:

1. Techno-commercial bid with supporting documents
2. Price bid
3. EMD demand draft



Name of Project: Integrated Livelihood Enhancement project, Vansda

Drawing for proposed construction of Toilets in Ta: Vansda, Dist: Navsari, Gujarat

Scale : 1:100

Name of work: Estimate for toilet in brick masonry including twin soak pit & water tank of 200 litres capacity			
Summary statement			
Sr. no	Item	Amt (In Rupees)	Remarks
1	Construction of toilet unit (1.1M*1.M*2.10M Height)	19300	Foundation excavation will be done by participants.
2	Construction of chamber (1M internal dia *1.5M deep)	4616	Excavtion of pit will be done by participants.
3	Solar light	300	
4	Water supply arrangement (200 litre cap) incl inlet & outlet arrangements	1500	Water supply arrangement will be done by participants.
Total		25716	
Say, Total		25700	
In words, Rupees twenty five thousand seven hundred only			

ABSTRACT SHEET

Name of work: Estimate for toilet 1.1* 1.0 Mtrs. in brick masonry

Qty	Unit	Description	Rate	Unit	Amount	Remarks
		ITEM No. 1				
		Excavation for foundation up to 1.50 mt depth including sorting out and stacking of useful materials and disposing of the excavated stuff up to 50 mt lead				
		For depth 0.00 mtr to 1.50 mtr				
1.18	Cum	(B) Dense or Hard Soil	156.00	Cum	0.00	Excavation by participant
		Ref. SOR (R&B) Chapter-4 item code-04B001B Item No -0 Page-39				
0.23	Cum	(B) Dense or Hard Soil	266.00	Cum	0.00	Excavation by participant
		Ref. SOR (R&B) Chapter-4 item code-04B001C Item No -0 Page-39				
		ITEM No. 2				
		Providing and laying cement concrete 1:3:6 (1-Cement : 3-Coarse Sand : 6-Hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of fom work in				
0.25	Cum	Foundation and plinth	2575.00	Cum	639.63	
		Ref. SOR (R&B) Chapter-5 item code-5003 Item No -5.3.2 Page-41				
		ITEM No.3				
0.12	Cum	Providing and Laying ordinary cement 1:2:4 (1 cement 2coarse sand 4graded stone aggregates 20mm nominal size) and finishing smooth with curing etc. complete including the cost of formwork but excluding the cost of reinforcement	5680	Cum	668.88	
		Ref. SOR (R&B) Chapter-5 item code-05026A Item No -0 Page-51				
		Brickwork using common burnt clay building bricks having crushing strength not less than 35 Kg / cm ² in foundation and plinth in cement mortar 1:6 (1-cement : 6 fine sand) -- conventional				
2.43	Cum	Extra for brickwork in super structure above plinth level up to floor two level	2886.00	Cum	7006.13	
		Ref. SOR (R&B) Chapter-6 item code-06002C Item No -6.13 Page-63				
		ITEM No.4				
		Providing and fixing C.C.Precast door frame size 1.80 x 0.60m and window size 0.45 X 0.30 m using required Mild steel,casting,curing & Carriage from market to site of work with all necessary care for fixing.				
1.00	No	Door	500.00	No	500.00	
1.00	No	Window	150.00	No	150.00	
		(As per market rate).				
		ITEM No. 5				
		Providing and laying cement concrete flooring 1:2:4 (1-Cement : 2-Coarse Sand : 4-graded stone aggregates 20 mm nominal size) laid in one layer finished with a floating coat of neat cement				
2.10	SQM	50mm thick	227.00	SQM	476.70	
		Ref. SOR (R&B) Chapter-14 item code-14015B Item No -14.71 Page-140				
		ITEM No.6				
		Providing 10 mm thick cement plaster in single coat on brick / concrete walls for interior plastering up to floor two level and finished even and smooth in				
24.05	Sqm	In C.M. 1 : 3 (1- cement : 3-sand)	89.00	Sqm	2140.41	
		Ref. SOR (R&B) Chapter-17 item code-17001A Item No -17.58 Page-153				
		ITEM No.7				
3.26	Sqm	Providing and fixing ceramic tiles for flooring (0.3m*0.3m) & dado (0.3*0.20) including Carriage from market to site of work with all necessary care for fixing.	500.00	Sqm	1630.00	
		As per Market Rate				
		ITEM No.8				
1.00	no.	Providing and fixing Ceramic water closet (IWC) including Carriage from market to site of work with all necessary care for fixing.etc complete.	500.00	no.	500.00	
		Market Rate				
		ITEM No. 9				

23.86	sq.m.	Finishing wall with water proofing cement paint of on wall surfaces (two coats) to give an approved brand and manufacture and of required shape even shade after throughly brushing the surface to remove all dirt and remains of loose powered materials.	48.00	sq.m.	1145.16	
		Market Rate				
		<u>ITEM No. 10</u>				
1	no.	Providing and fixing fibre door having size 1.8 m X 0.60m	2000.00	no.	2000.00	
		Market Rate				
		<u>ITEM No. 11</u>				
0.31	cum	Providing and Laying ordinary cement 1:2:4 (1 cement 2coarse sand 4graded stone aggregates 20mm nominal size) and finising smooth with curing etc. complete including the cost of formwork but excluding the cost of reinforcement for R.C.C work in slab.	5680.00	cum	1772.59	
		Ref. SOR (R&B) Chapter-5 item code-05026A Item No -0 Page-51				
		<u>ITEM No. 12</u>				
15	Kg	Steel work 8mm	45.00	kg	675.00	
		Market Rate				
		Total			19304.5	
				Say Rs	19300	
In words,Rupees Nineteen thousand three hundred only						

Name of work: Estimate for WC (1.1* 1) Mtrs. in brick masonry

MEASUREMENT SHEET

Sr. No.	Description of item	No.	L	B	D	Quantity	Remarks
ITEM No. 1							
1	Excavation for foundation up to 1.50 mt depth including sorting out and stacking of useful materials and disposing of the excavated stuff up to 50 mt lead						Excavation will be done by Participant
	For toilet area hard soil	2	1.68	0.45	0.50	0.76	
		2	0.88	0.45	0.50	0.40	
	steps	1	0.6	0.3	0.15	0.03	
						1.18	
	For toilet area hard murrm	2	1.68	0.45	0.10	0.15	
		2	0.88	0.45	0.10	0.08	
						0.23	Cum
ITEM No. 2							
2	Providing and laying cement concrete 1:3:6 (1-Cement : 3-Coarse Sand : 6-Hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of fom work in						
	(A) Foundation and plinth						
	long walls	2	1.68	0.45	0.10	0.15	
	short walls	2	0.88	0.45	0.10	0.08	
	steps	1	0.60	0.30	0.10	0.02	
						0.25	Cum
ITEM No.3							
3	Brickwork using common burnt clay building bricks having crushing strength not less than 35 Kg / cm ² in foundation and plinth in cement mortar 1:6 (1-cement : 6 fine sand) -- conventional						
	Extra for brickwork in super structure above plinth level up to floor two level						
	Conventional						
	For foundation (G.L)						
	Long wall	2	1.56	0.23	0.40	0.29	
	short wall	2	1.00	0.23	0.40	0.18	
	For Plinth						
	long wall	2	1.56	0.23	0.30	0.22	
	short wall	2	1.00	0.23	0.30	0.14	
	Step	1	0.60	0.30	0.15	0.03	
	Plinth Level Coping (1:2:4)	2	1.56	0.23	0.10	0.07	
		2	1.00	0.23	0.10	0.05	
						0.12	
	Brick work						
	Long wall	2	1.56	0.115	2.10	0.75	
	short wall	2	1.00	0.115	2.10	0.48	
	Water tank platform	3	1.00	0.23	0.75	0.69	
						2.78	
	Deduction for						
	Door	1	0.75	0.23	1.85	0.32	
	Ventilation	1	0.30	0.23	0.45	0.03	
						0.35	
						2.43	Cum
ITEM No. 4							
4	Providing and fixing C.C.Precast door frame size 1.85 x 0.75m and window size 0.45 X 0.30 m using required Mid steel,casting,curing & Carriage from market to site of work with all necessary care for fixing.						
	Door	1				1.00	No
	Window	1				1.00	No
ITEM No. 5							
5	Providing and laying cement concrete flooring 1:2:4 (1-Cement : 2-Coarse Sand : 4-graded stone aggregates 20 mm nominal size) laid in one layer finished with a floating coat of neat cement						
	50 mm thick	1	1.10	1.00		1.10	
	water tank platform	1	1	1		1.00	
						2.10	SQM

		ITEM No. 6									
6		Providing 10 mm thick cement plaster in single coat on brick / concrete walls for interior plastering up to floor two level and finished even and smooth in									
		In C.M. 1 : 3 (1- cement : 3-sand)									
		INSIDE									
		wall	2	1.00	2.10				4.20		
		wall	2	1.10	2.10				4.62		
		Slab	1	1.10	1.00				1.10		
		OUT SIDE									
		wall	2	1.56	2.50				7.80		
		wall	2	1.46	2.50				7.30		
		Step trade	2	0.60	0.23				0.28		
		Step risers	2	0.60	0.23				0.28		
									25.57	Sq mt	
		DEDUCTION									
		For Door	1	0.75		1.85			1.39		
		For windows	1	0.30		0.45			0.14		
									1.52		
									24.05	Sq mt	
		ITEM No.7									
7		Providing and fixing Precast ceramic tiles including Carriage from market to site of work with all necessary care for fixing.									
		dado for Wall (0.3*0.20)	1	4.2	0.6				2.52		
		for Floor (0.3*0.3)	1	1.1	1				1.10		
									3.62	Sqm	
		Deduction									
			1	0.6	0.6				0.36	Sqm	
									3.26	Sqm	
		ITEM No. 8									
8		Providing and fixing Precast hub/ceramic IWC including Carriage from market to site of work with all necessary care for fixing.	1					1.00		No.	
		ITEM No. 09									
9		Finishing wall with water proofing cement paint of on wall surfaces (two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.									
		INSIDE									
		wall	2	1.10	2.10				4.62		
		wall	2	1.00	2.10				4.20		
		Slab	1	1.10	1.00				1.10		
		Outside									
		wall	2	1.56	2.50				7.80		
		wall	2	1.46	2.50				7.30		
		Step side	2	0.30	0.15				0.09		
		Step trade	1	0.60	0.30				0.18		
		Step risers	1	0.60	0.15				0.09		
									25.38		
		DEDUCTION									
		For Door	1	0.75		1.85			1.39		
		For windows	1	0.30		0.45			0.14		
									1.52		
									23.86	Sq mt	
		ITEM No. 10									
10		Providing and fixing fibre door having size 1.8 m X 0.60m	1							1 no.	
		ITEM No. 11									
11		Providing and Laying ordinary cement 1:2:4 (1 cement 2coarse sand 4graded stone aggregates 20mm nominal size) and finishing smooth with curing etc. complete including the cost of formwork but excluding the cost of reinforcement for R.C.C work in slab.	1						0.31	cum	
				1.71	1.46	0.125					
		ITEM No. 12									
12		Steel work 8mm	1						15	Kg	

ABSTRACT SHEET

Name of work: Estimate for soak pit 1m dia *1.5m depth in brick masonry

Qty	Unit	Description	Rate	Unit	Amount	Remarks
		ITEM No. 1				
		Excavation for foundation up to 1.50 mt depth including sorting out and stacking of useful materials and disposing of the excavated stuff up to 50 mt lead				Excavation will be done by Participant
		For depth 0.00 mtr to 1.50 mtr				
10.05	Cum	(C) Dense or Hard Soil	156.00	Cum	0.00	
		Ref. SOR (R&B) Chapter-4 item code-04B001B Item No -0 Page-39				
		(D) Dense or Hard Murrum				
		ITEM No.2				
0.16	cum	Providing and laying cement concrete 1:3:6 (1-Cement : 3-Coarse Sand : 6-Hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of fom work in	2575.00	Cum	414.71	
		Ref. SOR (R&B) Chapter-5 item code-5003 Item No - 5.3.2 Page-41				
		ITEM No.3				
		Brickwork using common burnt clay building bricks having crushing strength not less than 35 Kg / cm ² in foundation and plinth in cement mortar 1:6 (1-cement : 6 fine sand) -- conventional				
0.533	Cum	Extra for brickwork in super structure above plinth level up to floor two level	2886.00	Cum	1538.19	
		Ref. SOR (R&B) Chapter-6 item code-06002C Item No -6.13 Page-63				
		ITEM No.4				
7.702	Sqm	Providng & constructing half brick honey comb construction for soak pit in CM 1:5 etc complte	190	sqm	1463.46	
		Ref. SOR (R&B) Chapter-6 item code-06012BA Item No -6.55 Page-70				
		ITEM No.5				
4.00	no.	Providing and fixing Precast C.C. sheet having size 1.5 m X 0.60 m from market to site of work with all necessary care for fixing.	300	no.	1200	
		Market Rate				
		Total			4616.36	
				Say Rs	4616	

In words Rupees four thousand six hundred sixteen only

**Name of work: Estimate for soak pit 1m dia *1.5m depth in brick masonry
Measurement soak pit 1.5*1*1**

Sr. No	Particulars	Unit	Nos	Length	Width	Height	Qty
	<u>ITEM No. 1</u>						
1	Excavation for foundation up to 1.5 mt.depth Including sorting out and stacking of useful materials and disposing of the excavated stuff up to 50 mt. lead.						
	Excavation						
	(A) For fecal chamber hard soil	cum	2	1.83	1.83	1.5	10.0467
	(C) Hard soil	Qty					10.05
	<u>ITEM No. 2</u>						
2	Providing and laying cement concrete 1:3:6 (1-Cement : 3-Coarse Sand : 6-Hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of fom work in	cum	6.28	1.115	0.23	0.1	0.161
	<u>ITEM No. 3</u>						
3	Brickwork using common burnt clay building bricks having crushing strength not less then 35kg/sq. Cm. in foundation and plinth in cement mortar 1:6(1 cement: 6 sand)						
	(A) Bottom brick work in foundation	CUM	6.28	1.23	0.23	0.15	0.266
	(B)Top wall brick work	CUM	6.28	1.23	0.23	0.15	0.266
	Total Qty						0.533
	<u>ITEM No. 4</u>						
4	Providing & constructing half brick honey comb construction for soak pit in CM 1:5 etc complte	sqm	6.28	1.115		1.1	7.702
	Total Qty	Sqm					7.702
	<u>ITEM No. 5</u>						
5	Providing and fixing Precast C.C. sheet having size 1.5 m X 0.60 m from market to site of work with all necessary care for fixing.	no.	4				4