

MAHARSHI DAYANAND UNIVERSITY ROHTAK

NOTICE INVITING TENDER

Sealed tenders on percentage/item rate basis are re-invited on behalf of the Registrar, MDU, Rohtak from contractors/societies / agencies on approved list of Haryana PWD B&R / P.H. Br., MES, CPWD, other State / Centre Govt. undertakings and other reputed firms. The tender forms will be issued to the contractors / societies / agencies from the date of publishing in newspaper up to the date of opening of tenders as mentioned against work by 12:00 Noon and will be received upto 2:00 P.M. in the office of the Registrar and opened at 2:30 P.M. on the same day in the Committee Room of Vice-Chancellor office in the presence of the tenderers or their authorized representatives, who may like to be present at that time. **The tender documents may be obtained from the office of the undersigned and the same be deposited in the office of the Registrar by the due date.**

Sr. No.	Name of work	App. Amt. (Rs.)	Earnest Money (Rs.)		Cost of tender form (Rs.)	Date of opening of tender	Time limit
			Society	Contractor			
1.	Revamping of W.T.P. (1.5MLD TO 3.75MLD), and Construction of Pump House at W.T.P	45.00 lac	45,000/-	90,000/-	5,000/-	13.08.2012	03 months

CONDITIONS:-

1. Complete NIT and DNIT (Detailed Notice Inviting Tender) alongwith eligibility criteria/terms & conditions and changes if any can be seen in the office of undersigned on any working day during office hours (9:00 AM to 5:00 PM) and on University Website – www.mdurohtak.ac.in
2. The tenderer will keep in touch with the University Web site for any change in the NIT/DNIT till the last date/revised last date of sale of tender and incorporate such changes in NIT/DNIT and the tender bids.
3. Eligibility Criteria (at the time of purchase of tender):

The tenderers/bidders shall fulfill the below mentioned qualifying criteria and they shall submit the attested copies of relevant documents to support their eligibility at the time of purchase of tender. The copies of these documents shall be signed and stamped by the bidder and duly attested by a Notary Public:

- i) The average annual financial turnover for last 3 years shall be at least 40% of the estimated cost put to tender, Copies of balance sheets of last three financial years, duly certified by a Chartered Accountant shall be submitted in support of the requisite financial Turnover. The copies of the balance sheets, as above, shall also be signed and stamped by the bidder as well.
- ii) The bidder should have successfully completed similar works during the last five years as mentioned below:
 - a) Three similar works each costing not less than 40% of the estimated cost put to tender.
Or
Two similar works each costing not less than 60% of the estimated cost put to tender.
Or

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One similar work costing not less than 80% of the estimated cost put to tender. Similar work means Water Treatment Plant (WTP) / Sewage Treatment Plant (STP) works. In case the bidder has executed the work(s) under a private sector, the value of the work should be reflected in the TDS of the corresponding year(s) and shall submit requisite Proof/TDS certificate for the same.

- iii) Copy of Sales Tax / VAT Registration Certificate.
 - iv) Bank Solvency certificate to be submitted for the value of at least 40% of the estimated cost put to tender which should have been issued by the Bank within one year from the date of publication of this NIT.
4. Earnest money is to be deposited at the time of purchase of the tender. It should be in the shape of Demand Draft or Deposit at Call in favour of the Executive Engineer, MDU, Rohtak payable at Rohtak.
 5. Contractors shall quote single percentage of rate below/above on (HSR+C.P.) on all chapters. N.S. item rates are to be quoted separately. The tender, without the rates of N.S. items, if any, in DNIT, will be rejected.
 6. In case tendering day happens to be a holiday, the tenders will be received / opened on next working day at the same time.
 7. Conditional tender is liable to be rejected.
 8. Any work, here tendered, may be withdrawn from further processing at any stage at the discretion of the competent authority without assigning any reason.
 9. Nothing extra whatsoever shall be paid on account of losses, damages done by rains or any other natural calamity.
 10. The tender is liable to be rejected if the tender is found in variance of the above conditions or the conditions of the NIT/DNIT.
 11. Engineer-in-Charge is competent to increase / decrease the quantity of work. In case of decrease of quantity, the contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full.
 12. The University reserves the right to accept or reject or negotiate any of the tender or conditions/items without assigning any reason.
 13. Plumbing and E.I. work shall be got done through license holder agencies for the works involving PH / E.I.
 14. The agencies shall paste the cello tape on the rates quoted by them.
 15. Tenders will be kept open for 90 days from the date of opening and by mutual agreement thereafter, if needed.

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16. 10% security will be deducted from your all bills which will be refunded as under:
 - i) 50% security will be refunded after 3 months of completion of work
 - ii) 50% security will be refunded after 24 months of completion of work.
17. Work will be executed as per HSR, HSEB SR and latest IS/BIS codes as applicable.

Executive Engineer

Endst. No. EE/ 2012 / 5344-75

Dated: 17.07.2012

A copy of the above is forwarded to the following for information and necessary action:-

1. Superintending Engineer, PWD B&R Circles, Rohtak
2. Technical Advisor to VC, MDU, Rohtak
3. Executive Engineer, PWD B&R (Medical College), Rohtak/ Executive Engineer, PWD B&R (Medical College), Rohtak / KUK / HAU. Hisar / GJU, Hisar / CDLU, Sirsa / BPS Women University, Khanpur/ DBSCRU, Murthal
4. P.A. to Vice-Chancellor (for kind information of the Vice-Chancellor), M. D. University, Rohtak
5. P.A. to Registrar (for kind information of Registrar), MDU, Rohtak
6. SDE(C-I, II, III) / SDE (E-I) / SDE (PH) / SDE (Horti.-I, II), MDU, Rohtak
7. Divisional Accountant / H.D.M., Engineering Cell, MDU, Rohtak
8. Notice Board
9. Contractor/Agency/Society:_____

Executive Engineer

DETAIL NOTICE INVITING TENDER

Name of work “Revamping of W.T.P. (1.5MLD TO 3.75MLD) and Construction of Pump House at W.T.P in MDU, Rohtak”

App. Amt. Rs. 45.00 lac

Earnest Money Rs. 90,000/- / Rs. 45,000/-

Time limit: 03 months

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
1/NS		<p>SECTION-1: Revamping of existing Water Treatment Plant (1.5MLD to 3.75MLD) Supplying/I/T/C of revamping of Existing Water Treatment Plant of Cap-1.5mld to make up to 3.75mld complete with providing additional civil, electrical and mechanical arrangement as given below. NOTE:</p> <ul style="list-style-type: none">(a) Contractor shall include all electrical mechanical items as required to operate the system automatically/ manually and also include in his rates level controller, electrical wiring cables earthing main control panel and connection to be various equipment's, other accessories complete as required.(b) Contractor has responsibility to check the water hardness from actual water analysis report before procuring the equipment.(c) Contractor may alter the number of filters and pumps considering the space availability to meet the desired capacities.(d) Supply of all required Civil & Mechanical/Electrical shop drawings/ design/technical report at the time of execution including necessary items, if required, that has not been mentioned in the BOQ.		

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
	02 nos.	1a. Supplying, installation & commissioning of Twin type rotary air blowers (2W+1S(existing) capable of following cap. driven through 'V' belt or directly coupled through flexible coupling to a TEFC motor of suitable HP suitable for 415 \pm 10% volts, 3 phase, 50 cycles AC supply. i) Capacity 225 cum/hr. ii) Pressure 5000 MMWG iii) Make : Everest / Usha	Rate to be quoted by the contractor	Each
	01 no.	1b. Supplying, installation & commissioning of Gear box for clarifier complete with following specifications. i) Ratio 1:60 ii) Make : Radicon / Alicon	Rate to be quoted by the contractor	Each
	01 no.	1c Supplying, installation & commissioning of Electrical motor for Clarifier complete with following specifications. i) Capacity : 3.0 H.P. ii) Make : Crompton /Kirloskar	Rate to be quoted by the contractor	Each
	01 no.	1d Supplying, installation & commissioning of Agitator arrangement in Clarifier complete with following specifications. i) Motor Capacity : 2.0 H.P. ii) Gear Box RAtio : 1:40 iii) MOC of Plates : SS304 iv) Make of motor : Crompton/Kirloskar v) Make of Gear : Radicon / Alicon	Rate to be quoted by the contractor	Each
	01 no.	1e Supplying, installation & commissioning of Electrical panel for air blower and scrapper mechanism i) Make : Fontus /Candyfilter/Seema lab	Rate to be quoted by the contractor	Each

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
	01 unit	1f Supplying, installation & commissioning Scrapper mechanism in Clarifier complete with following specifications. i) MOC of shaft : SS304 ii) Make : Fontus /Candyfilter/Seema lab	Rate to be quoted by the contractor	Each
	01 lot as required	1g Supplying, installation & commissioning of Filter media of Sand, Gravel & Pebbles as required from approved supplier/material i) Type of Media : Sand, Gravels, Pebbles	Rate to be quoted by the contractor	Per lot
	02 nos.	1h Supplying, installation & commissioning Electro chlorinator comprising of 1000 Ltrs Cap. HDPE (chemical grade) tank with inlet/outlet connection and along with 01 no. metering pump of adjustable capacity for dosing of chlorine solution (each 0-12 LPH) (substitute of bleaching dosing & with temporary Dual Media Filter) i) Type of Media: Electro-chlorinator ii) Make : Denora /Asia LMI	Rate to be quoted by the contractor	Each
		1i WTP ELECTRICAL PANEL: Design, manufacture, supply, installation, testing and commissioning of following MV switchgear panels suitable for 415 V, 3 phase, 4 wire, 50 Hz power distribution system. The panel shall be Indoor, free standing, floor mounting, wall mounted, sheet metal clad, cubicle, dead front, dust and vermin proof type compartmentalized design fabricated out of 14 SWG CRCA sheet steel, complete with colour coded, heat shrinkable PVC insulated, aluminum bus bars and separate earth bus bar of adequate cross section throughout the length of the panel. The incoming and outgoing feeders shall be accommodated in a fully segregated, modular multitier arrangement with adequate size and distinct cable alley, bus bar alley/chamber. The panel shall be complete with name plate, earthing, numbering, danger plate etc. as required and as per specifications and drawings. The panel shall withstand the fault level of as indicated elsewhere or shown in Single Line Diagram		

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
		The BOQ shall be read in conjunction with general notes, specification and Single Line Diagram. In case of any discrepancy between specification, BOQ and SLD, the same shall be brought to the notice of Client/Consultant before quoting the rates, otherwise stringent condition shall be deemed to have been considered. Fault current wherever mentioned shall be lcs value.		
		All MCCB shall be provided with door interlocked rotary handle with ON/TRIP/OFF position indicator, continuous variable thermal magnetic O/C and S/C releases. I/C MCCB shall be provided with E/F release also.		
		All feeder doors shall have pad locking arrangement.		
		All TPN feeders shall have solid isolable neutral link.		
		All MCCB used in starter feeder shall be suitable for motor duty application. (curve 'X' type)		
		Spare contacts of MCCB/Relays/Contactor etc. shall be wired upto terminal block.		
		All switchgear used in starter feeder shall be type-2 co-ordinated. Manufacturer is required to submit manufacturers type-2 co-ordination chart for the make used.		
		All outgoing terminals (power and control) shall be brought upto cable alley. 10% extra terminals shall be provided.		
		10% extra indicating lamp in loose shall be supplied along with panel.		
		Removable lifting hook shall be provided in all transportation section.		
		All CT, PT shall be cast resin.		
		All meters are digital type.		
		Panel shall be powder coated of approved shade with minimum 60 micron thickness.		
		ACB's/MCCB's in one particular panel shall be of one similar make.		

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
		Size of Voltmeter / Ammeter for incomer also, 96mm x 96mm flush mounted with shrouded terminal shall be used in the panel.		
		Bus bar chamber shall be kept at top of the all panels.		
		All bus bar shall be insulated with coloured PVC Sleeve i.e.RYB,BK as per colour code.		
		Internal wiring of panel shall be with size 2.5sqmm Flexible Copper Conductor for CT circuit and control wiring with 1.5 sqmm.		
		All indicating light shall be LED type .		
		Each vertical section of floor mounted panel shall have independent base frame (75mm x 40mm) size made out of 3 mm sheet steel (WTP Panel).		
		Wherever only voltmeter & ammeter are required, the same may be provided in combined meter suitable for both parameter.		
		All the makes shall be as per Client approved make list only.		
		<p>(i) Incomer:- Each incomer having One (1) Nos.400A, 415 V, 35 kA TPN pole MCCB, ON/OFF/TRIP, Indication Lamps complete as required.</p>		
		<p>(ii) Metering, indication and protection of incoming breakers : The incoming shall be provided with the following: a) One (1) No. (0-400Amp) Digital type ammeter with required CTs of 15VA, class 1.0. b) One (1) No. 0-500 V, digital type voltmeter with required control SP MCB.</p>		

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
		c) One set (3 nos.) phase indication lamps with control MCB. d) One (1) No. earth leakage relay with multiple trip setting with suitable CBCT.		
		(iii) Busbar :		
		500A ,35kA TPN Al. bus bar insulated with heat shrinkable sleeves and shall be colour coded.		
		Separate earth bus bar 50X 6mm. of Aluminum shall be provided.		
		(iv) Outgoings :		
		All the outgoing feeders shall be provided with ON/OFF/Trip indication lamps with SP MCB with CTs of suitable range class 1.0, 15VA .and single phase preventer with sufficient number of NO/NC Potential free contacts. AC3 power contactor shall be of heavy duty and all the MCB shall be suitable for motor duty.		
		Section-1 - Star Delta Starter - 15 to 30 HP/1.9 to 22.5kw - DOL Starter - 10 HP/ 7.5kw - DOL Starter -7.5 HP/5.5kw - DOL Starter -4.15 HP/3.1kw - DOL Starter - 3 HP - DOL Starter - 2 HP/1.5kw - DOL Starter - 1 HP/.746kw (2 Nos. Single Phase) - Three (3) Nos. 100 Amp TPN MCCB, 35 kA. - Two (2) Nos. 63 Amp TPN MCCB, 35 kA. Section-2 - Star Delta Starter - 15 to 30 HP/1.9 to 22.5kw - DOL Starter -10 HP/7.5kw - DOL Starter -7.5 HP/5.5kw - DOL Starter -4.15 HP/3.1kw - DOL Starter - 2 HP/1.5kw - DOL Starter - 1 HP/.746kw (2 Nos. Single Phase) - Three (3) Nos. 100 Amp TPN MCCB, 35 kA. - Two (2) Nos. 40 Amp TPN MCB, 35 kA.		

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
	01 job	<p>Notes:</p> <p>i) All starter (DOL & star delta starter) shall be provided with required TP MCCB / TP MCB (as per SLD), auto/manual switch, over load relay with single phase preventing feature, ON/OFF/TRIP indication lamps, ON/Off push buttons, contactors suitable for remote/local operation, contacts for building automation system, indication & spare potential free contacts, level controllers level switches etc. as required.</p> <p>ii) The cost of following items should be included: -</p> <p>a) PVC sheathed XLPE insulated aluminum conductor, Armaured. Power / multi core control cable.</p> <p>b) Cable termination.</p> <p>c) Copper conductor cable.</p> <p>d) MS hotdip Galvanised Ladder type cable tray / perforated cable tray.</p> <p>e) Earthing strip / wires.</p> <p>f) GI plate earthing station.</p>	Rate to be quoted by the contractor	Per job
2.	01 no.	Supplying/installation new filter, testing & commissioning of vertical self supporting Multi grade sand filter fabricated from MS sheet as per IS : 2825. pressure gauges at inlet & outlet valve, rinse drain, vacuum breaker etc. MS / GI class 'C' face piping (frontal piping), CI butterfly valves and all accessories, with initial charge of filter media for multi grade filter, painting inside with epoxy paint and outside with two coat of red oxide primer and two or more coat of synthetic	Rate to be quoted by the contractor	Each

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
		enamel paint, testing and commissioning complete with Bypass arrangement including valves and pipe. for Temporary arrangement at existing WTP: i) Capacity: 75 cum/hr. ii) Size: 2400mm D x 1800mm H iii) MOC: MS internal coated vi) Max. operating pressure – 3.5 kg./ sq. cm v) Test pressure – 5.5 kg. / sq. cm		
3.	01 no.	Providing and fixing C.I. double flange sluice valve as per IS : 14846 Kirlosker make size 300mm I/D nuts bolt rubber insertions.	Rate to be quoted by the contractor	Each
4.		S/I/T/C of Electric motor driven Domestic pumping set (kirloskar/mather platt make) consisting of the following and as per CPWD specification Part V-1985. A) Centrifugal horizontal End suction type multistage pump suitable for delivery of 2500LPM at a total head of 37M so as to ensure a minimum pressure of 1.7kg/sq.cm at farthest outlet of the specified flow and minimum 3.7kg/sqcm at the pump outlet. The pump shall be of horizontal End suction type with cast iron body, bronze impeller and stainless steel shaft directly coupled through a flexible coupling with electric motor. The pump shall be capable of giving a discharge of not less than 150% of the rated discharge at a head not less than 65% of the rated head.		

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
	02 nos.	<p>B) Squirrel cage AC induction motor suitable for operation 415 V (+/- 10%) three phase 50 Hz A.C supply of suitable HP with synchronous speed of 2900 RPM (with permissible slip). The motor shall have 'B' class insulation and the enclosure shall be TEFC type conforming to protection clause IP 55 of IS : 4691. The motor shall otherwise conform to IS:325-1978. The motor shall be rated for continuous duty.</p> <p>C) Common base plate fabricated out of MS channel of size 75 x 150mm</p> <p>D) Suitable pump foundation with vibration damping arrangement by cushy foot or similar mountings as required</p> <p>i) Cap-2500lpm @ 37m head</p>	Rate to be quoted by the contractor	Each
4.	01 no.	Miscellaneous works for piping inside the Filter media, Gate/Butterfly/NRV valves, for existing air blower & agitator arrangement for Alum mixing by providing automatic system, Pressure gauge metering arrangement, measuring V notch/channel etc. at existing WTP system complete finishing and commissioning .	Rate to be quoted by the contractor	Each

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
		SECTION-2 : Construction of Pump House (2 nos.) CIVIL WORK:		
1/6.6	70 cum	(B) (i) Earth work in Excavation of Foundations in Trenches Earth work in excavation in foundations, trenches, etc in all kinds of soils, not exceeding meters depth including dressing of bottom and sides of trenches , stacking the excavated soil, clear from the edge of excavation and subsequent filling around masonry, in 15 cm layers with compaction , including disposal of all surplus soil, as directed with in a leadoff 30 meters	@ Rs. 1108.10 (Rs. One thousand one hundred eight & paisa ten only)	Per 100 cum
2/6.2(d)iii	70 cum	Earth work excavation in ordinary soil exclusive of compensation of earth:- (e) Wet earth work:- (iii) extra for wet earth work for depth above 30 cm of sub-soil water level	@ Rs. 83.10 (Rs. eighty three and paisa ten only)	Per 100 cum
3/14.1	100 sqm	Base course of floors consisting of 100 mm thick concrete 1:8:16 and 100 mm sand or stone filling	@ Rs. 36.95 (Rs. Thirty six & paisa ninety five only)	Per sqm
4/10.39	06 cum	Cement concrete 1:4:8 with stone aggregate 40 mm nominal size in foundation and plinth.	@ Rs. 403.10 (Rs. four hundred three and paisa ten only)	Per cum
5/10.40	07 cum	Cement concrete 1:3:6 with stone aggregate 20 mm nominal size in foundation and plinth.	@ Rs. 516.90 (Rs. five hundred sixteen and paisa ninety only)	Per cum
6/9.13	105 sqm	Shuttering for faces of concrete foundation and foundation beams(vertical or battering)	@ Rs. 30.65 (Rs. thirty and paisa sixty five only)	Per sqm

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
7/10.114	15 sqm	Damp proof course 40 mm thick of cement concrete 1:2:4 using stone aggregate 20 mm nominal size with 2 coats of bitumen 20/30 penetration at 1.65 Kg per sqm laid hot and sanded	@ Rs. 35.05 (Rs. Thirty five & paisa five only)	Per sqm
8/18.22	60 qtl.	Cold twisted deformed (ribbed/tor steel) bars for RCC works where not included in the complete rate or RCC including bending binding and placing in position complete	@ Rs. 917.05 (Rs. Nine hundred seventeen & paisa five only)	Per qtl.
9/10.90 + 10.95(a)	15 cum	Cement concrete 1:1½:3 instead of cement concrete 1:2:4 with stone aggregate 20mm nominal size for reinforced concrete work in footings, strips, foundations, beams, rafts, pedestals and approach slabs of bridges etc., excluding steel reinforcement but including centering and shuttering, laid in position, complete in all respects, (for work upto 1.5 metres below ground level.)	@ Rs.774/- (Rs. seven hundred seventy four only)	Per cum
10/10.87+ 10.95(a)	04 cum	Cement concrete 1:1½ :3 with stone aggregate 20 mm nominal size for reinforced concrete work for walls (10 cm to 20 cm thickness straight and curved excluding steel reinforcement but including centering and shuttering , laid in position, complete in all respects. (a) extra over item nos. 10.79 to 10.94, if 1: 1½:3 mix is used instead of 1:2:4	@ Rs. 1,486.90 (Rs. one thousand four hundred eighty six and paisa ninety only)	Per cum
11/10.86 + 10.95(a)	20 cum	Cement concrete 1:1½ :3 with stone aggregate 20 mm nominal size for reinforced concrete work for walls exceeding 20 cm thickness (straight and curved) beams, girders, stairs, columns, (straight or rectangular) battens and lintels etc. excluding steel reinforcement but including centering and shuttering , laid in position, complete in all respects. (a) extra over item nos. 10.79 to 10.94, if 1: 1½:3 mix is used instead of 1:2:4	@ Rs. 1,188.75 (Rs. One thousand one hundred eighty eight & paisa seventy five)	Per cum
12/11.7	40 cum	First class brick work laid in cement sand mortar 1:6 in first storey upto 4 meters above plinth level	@ Rs. 414.45 (Rs. Four hundred fourteen & paisa forty five only)	Per cum

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
13/11.48(a)	55 sqm	(a) 11.43 cm thick brick wall laid in cement sand mortar 1:4 in superstructure	@ Rs. 55.10 (Rs. Fifty five & paisa ten only)	Per sqm
14/18.24	90 kg.	(J) Steel Glazing: Supplying operable steel doors and windows, of standard steel sections, joints mitered and electrically flash welded including provision for arrangement of receiving handles, peg stay, catcher will also be welded with the frame and providing and fixing pressed steel projected hinges, iron lugs, glazing clips (excluding wooden shutters, glazing and fittings such as handles, peg stay and catcher etc.) and finished with one coat of ready mixed red lead non setting primer.	@ Rs.14.30 (Rs. fourteen and paisa thirty only)	Per kg.
15/18.16	08 sqm	Providing and fixing G.I. sheet 0.80 mm thick garage doors, with 40mm x 40mm x 6mm angle iron frame with diagonal braces, 3mm thick gusset plates at the junctions, hooks at the top and 25mm dia, pulleys, and T-iron 50mm x 50mm x 6mm guides at bottom including locking arrangements with handles and pointless, etc. complete.	@ Rs. 424/- (Rs. four hundred twenty four only)	Per sqm
16/14.9 + 14.3	100 sqm	Conglomerate floor 40 mm thick cement concrete topping 1:2:4. Floating cost of 1.50mm thick neat cement laid in one operation to the topping.	@ Rs. 35.20 (Rs. thirty five and paisa twenty only)	Per sqm
17/15.5	250 sqm	12 mm thick cement plaster 1:4	@ Rs. 12.70 (Rs. Twelve & paisa seventy only)	P.sqm
18/15.7	180 sqm	12 mm thick cement plaster 1:6	@ Rs. 10.65 (Rs. Ten & paisa sixty five only)	Per sqm

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
19/16.48	250 sqm	White washing three coats	@ Rs. 1.25 (Rs. one and paisa twenty five only)	Per sqm
20/16.25	55 sqm	Applying priming coat with cement primer in all shades on newly plastered or concrete exterior surfaces	@ Rs. 4.15 (Rs. Four and paisa fifteen only)	Per sqm
21/16.3	55 sqm	Painting two coats excluding priming coat with synthetic enamel paint in all shades on new wood work or metallic or plastered or concrete surfaces to give an even shade.	@ Rs. 8.05 (Rs. Eight & paisa five only)	Per sqm
22/17.83(c)i	06 nos.	Providing and fixing sliding bolt with nuts and screws etc complete (c) Iron (i) size 300mm x 16mm	@ Rs. 17.45 (Rs. seventeen and paisa forty five only)	Each
23/NS	12 nos.	Providing and fixing 250 x 10mm ISI marked oxidized M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete in all respects as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
24/NS	18 nos.	Providing and fixing 125 x 65 x 2.12 mm ISI marked oxidized M.S. pressed butt hinges with necessary screws etc. complete in all respects as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
25/NS	40 nos.	Providing and fixing 125mm ISI marked oxidized M.S. handles conforming to IS: 4992 with necessary screws etc. complete in all respects as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
26/17.78(C)	25 nos.	Providing and fixing 150mm hasps and staples with necessary screws, etc., complete. (c) iron	@ Rs. 4.30 (Rs. four and paisa thirty only)	Each

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
27/NS	25 nos.	Providing and fixing oxidized M.S. casement stays (straight peg type) with necessary screws etc. complete as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
28/NS	06 nos.	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar bent to shape with hooked ends in RCC slabs, beams, during laying including painting the exposed portion of loop, all as per standard design complete as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
29/18.18(a)	16 sqm	Supply and fixing rolling shutters, of approved make, M.S. Laths, interlocked together through their entire length, and jointed together, at the end, by end locks mounted on specially designed pipe shaft, with brackets, side guides, 27.5 cm long wire spring grade no.2, and arrangement for inside and out-side locking, with push and pull operation complete, including top cover 0.80 mm thick (payment is to be made for the exact size of opening where rolling shutter is to be fixed):- (a) with 80mm x 1.00mm M.S. Laths	@ Rs. 364.70 (Rs. three hundred sixty four and paise seventy only)	Per sqm
30/14.23	60 sqm	Brick-on-edge or tile flooring laid in cement sand mortar 1:4 on 75mm thick cement concrete 1:8:16 and 100mm sand filling and cement pointed 1:2 on top	@ Rs. 85.55 (Rs. eighty five and paise fifty five only)	Per sqm
31/NS	1 job	Repairing work of existing WTP room for RCC beams, lintels, roof, brick wall etc. complete with necessary plastering and water proofing and finishing etc. as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Complete job

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
2/31.40	100 mtr.	Supply and erection of PVC unsheathed copper conductor cable single core 1100 volts grade in pipe of suitable size excluding cost and erection of pipe(for connection of G.O. switches on existing pole). (i) Cable size 1.5 sqmm (3/0.81mm)	@ Rs. 10.20 (Rs. ten and paisa twenty only)	Per mtr.
	100 mtr.	(ii) Cable size 2.5 sqmm (3/1.05mm)	@ Rs. 16.30 (Rs. sixteen and paisa thirty only)	Per mtr.
	200 mtr.	(iii) Cable size 4 sqmm (7/0.85mm)	@ Rs. 24.50 (Rs. twenty four and paisa fifty only)	Per mtr.
	50 mtr.	(vi) Cable size 16 sqmm (7/1.70mm)	@ Rs. 83.70 (Rs. Eighty three and paisa seventy only)	Per mtr.
3/31.18(xxiv)	16 nos.	(M) Supply and erectin of fittings and accessories. (xxiv) erection only 1x40 watts or 2x40 watts 1220 mm long /1x20 watts or 2x20 watts 610mm long fluorescent tube fittings directly on wall including necessary connections with 0.75 sqmm (24/0.20 mm) PVC copper flexible cable for connecting the tube with the adjacent light point.	@ Rs. 10.90 (Rs. ten and paisa ninety only)	Each
4/31.20(i)	08 nos.	(O) Erection and carriage of fans: (i) erection of ceiling fan complete with necessary earthing of fan and regulator including carriage from local railway station / Goods transport/PWD store to the site of work.	@ Rs. 13/- (Rs. thirteen only)	Each
	06 nos.	(iii) erection of exhaust fan complete with necessary earthing of fan and regulator including carriage from local railway station / Goods transport/PWD store to the site of work.	@ Rs. 25/- (Rs. twenty five only)	Each

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
5/31.12	02 nos.	(d) Sheet steel enclosure: Supply and erection of sheet steel enclosures distribution boards suitable for MCBs etc. on wall/existing board/pedestal with rag bolts including bonding to earth:- (iv) Distribution board 4 way (SPN)	@ Rs. 263/- (Rs. two hundred sixty three only)	Each
6/31.17(a)	08 nos. 01 no.	(L) Miniature Circuit Breaker and Isolator Supply and erection of miniature circuit breaker/isolator 240 / 415 V in the existing distribution board including making necessary connections:- (a) Miniature Circuit Breakers of 9 K.A. breaking capacity. (ii) 6 amp. to 32 amp. (Single Pole) (iii) 40 amp to 63 amp. (Single Pole)	@ Rs. 95/- (Rs. ninety five only) @ Rs. 113/- (Rs. one hundred thirteen only)	Each Each
7/NS	12 nos.	Supply of fluorescent tube light Philips TMC 21 136 with tube rod of approved make as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
8/NS	02 nos.	Supply of CFL fitting FCS 21/211 including lamp of approved make(Bajaj/Philips) as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
9/NS	02nos.	Supply of Philips FMC 170/111 wall mounting bracket including lamp of approved make as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
10/NS	08 nos.	Supply of fans 1200mm of Orient make (white PSPO) as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each
11/NS	06 nos.	Supply of exhaust fan of Orient make (heavy) 380mm as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each

Contd...P/18....

- 1) **Preparation of shop drawings** - Contractor shall submit the detailed shop within two weeks after the award of the contract.
- 2) Contractor shall furnish and install a complete working plumbing & sanitary services installation as per approved shop drawings and as described in this specifications and as per the latest BIS codes. If any item (S) of work (S) which are explicitly/implicitly not specified in B.O.Q. but are necessary either as per specifications/BIS Codes or as per mandatory / local authority requirements; these shall be identified by the contractor with cost implication at the time of submission of tender (as an annexure) failing which no claims to this respect shall be permitted during execution of the contract.
- 3) Before starting the work at site the contractor shall examine all services drawings and report to Engineer-in-Charge for discrepancies and obtain clarifications. Any work done without regard or consultation with other trades, shall be removed by the contractor without additional cost to the owner.
- 4) Cleaning of all fixtures/equipment and piping including flushing of all pipe work to remove any foreign matter shall be carried out in sections as the work progresses.
- 5) Contractor shall temporarily cover & protect all fixtures, equipments & open pipe ends etc. It is the responsibility of the Contractor to protect all the installed fixtures/fittings and all equipments until the time of testing, commissioning & handing over to the owners.
- 6) Painting of all concealed and exposed pipes, equipment as specified including weather proof treatment on exposed/ burried pipe work shall be part of this contract, even if it is implicitly/explicitly not specified in B.O.Q.
- 7) Testing including Pressure testing in all internal & external piping & commissioning of all systems in full including submission of test reports.
- 8) Contractor shall submit as installed drawings, operation and maintenance manual for all equipments/operations etc. Framed operating & maintenance instructions shall be provided in plant room.

9) **AWARENESS OF SITE CONDITIONS AND CARRYING OUT OF SITE INSPECTION PRIOR TO TENDER SUBMISSION :**

Prior to the preparation and submission of his Tender, the Contractor shall make visits to the site and carry out all the necessary inspections and investigations in order to obtain all information and to make his own assessment of the conditions and constraints at site, including the means of access to it. The Contractor shall make himself aware of all the features of the site and the working conditions and space and shall, in general, be responsible for obtaining all the necessary and requisite information needed for him to prepare and submit his Tender.

Should the Contractor require any clarifications he shall seek these in writing from the Engineer-in-Charge before submitting his Tender. At no stage will any extra claims be entertained or allowed on any matter or for any reason arising from or as a consequence of the Contractor's failure to comply with all the requirements stipulated in this Clause.

10 **"AS BUILT" DRAWINGS :**

At the completion of work and before issuance of certificate of completion the contractor shall submit eight (8) sets to the Engineer-in-Charge, layout drawing drawn at appropriate scale indicating the complete WTP, Plumbing & Sanitary, Electrical system "as installed".

11. **INSTRUCTION/MAINTENANCE MANUAL :**

The Contractor shall prepare and produce instruction, operation and maintenance manuals in English for the use, operation and the maintenance of the supplied equipment and installations, and submit to the Executive Engineer / Consultants in (5) copies at the time of handing over. The manual shall generally consist of the following:

- a) Description of the project.
- b) Operating instructions(also in Hindi).
- c) Maintenance instructions including procedures for preventive maintenance(also in Hindi).
- d) Manufacturers catalogues.
- e) Spare parts list.
- f) Trouble shooting charts
- g) Drawings.
- h) Type and routine test certificates of major items.
- i) One (1) set of reproducible 'as built' drawings.

12. **GUARANTEE :**

At the close of the work and before issuance of final certificate of completion by the Executive Engineer / Consultants, the contractor shall furnish written guarantee indemnifying the owner against defective materials and workmanship for a period of two years after completion. The contractor shall hold himself fully responsible for reinstallation or replacement, free of cost to owner, the following :

- a) Any defective work or material supplied by the Contractor.
- b) Any material or equipment supplied by the owner which is damaged or destroyed as a result of defective workmanship by the contractor.
- c) Any material or equipment damaged or destroyed as a result of defective workmanship by the contractor.

13. **PUMPS & WATER TREATMENT SYSTEM:**

The following Details of Existing WTP with modifications has to be considered while doing Re-vamping of WTP

- Raw Water Pumps : 15HP x 2nos.(Shall be now put as a standby)
- Capacity of Rotating Clarifier : 400 M³ (will be sufficient for future Load)
- Dia of Rotating Existing Clarifier: 13 mt. (Cleaning & Maintenance required)
- Slow Sand Filter bed : (1x2.5x1)x6 M³ (Filter media needs to be replaced with new media)
- Gear Box Ratio : 60:12 & 78:13 defunct. (needs to be replaced)
- Air Blower : 2 nos. =1working +1 no. defunct. (Needs to be replaced)
- Chlorination system : Manually mixed Bleaching power being used.
: Automatic system Alternative system needs to be arranged.
- Alum mixing System : Manually, Needs to be changed with modified system.
- Electric Panel for whole system: Needs to be modified or changed.
- Additional Plant Room required to be constructed as per the need.

14. **LIST OF APPROVED MAKES FOR PLUMBING/SANITARY WORKS:**

Note: The tenderer shall quote his rates on the basis of price of brand/ make stipulated in the item of works as described in BOQ specification and furnished in technical data. The tenderer shall consider the first make of material from the list of Approved make while quoting tender. The owner reserves the right to select any of the brand indicated in the “List of approved makes/ Agencies”.

Sr. No.	MATERIAL DESCRIPTION	APPROVED MAKES
1	Sanitaryware	: a) Imported (If Supplied by the Client) b) Hindustan Sanitaryware / Parryware / Cera
2.	PVC Cistern/Seat covers (Heavy Duty)	: Commander / Diplomet /Admiral
3.	C.P fittings & Bathroom accessories	: a) Imported (If Supplied by the Client) b) Jaquar/Gem/ ESS/Ceramix/ Roca(Parryware)
4.	Stainless Steel Sink	: Neelkant /AMC /Jayna /Parryware
5.	Infra red based electronic flusing system for urinal	: Euronics/Utec /TOSHI/Towerstop(italy)
6.	SS Hand Drier/ Liquid Soap Container	: Euronics/ Utec /TOSHI
7.	UPVC Pipe & Fitting	: Supreme/Finolex/Prince/Jain PVC Pipe
8.	DI Pipe & Fittings	: Jindal /Balaji /Electrosteel
9.	G.I. Pipes/M.S. Pipe	: Jindal (Hissar),/Jindal/ Tata
10.	G.I. fittings (malleable cast iron)	: Unik/Zoloto ‘M’/DRP ‘M’
11.	SFRC Manhole Cover/Grating	: K.K.Manhole/Jain spun pipe/Pragati
12.	CI Pipes/fittings (I.S: 3989-1984)	: HEPCO /NECO/BIC/RIF/BAJAJ
13.	CI Pipe / fittings (I.S: 1729)	: HEPCO/ NECO/ RIF/BAJAJ
14.	CI pipes ‘Class LA’ / ‘A’	: Electrosteel / Jindal / Kesoram

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Sr . No.	MATERIAL DESCRIPTION	APPROVED MAKES
15.	Stoneware pipes/Gully traps	Perfect/R.K/ Anand
16.	R.C.C Pipe	Jain Spun Pipe/Pragati/Daya Spun Pipe
17.	C.P. Grating	Camry/Chilly/Neer
18.	Cast Brass Clean Out Plugs	Camry /Neer
19.	C.I Manhole Cover (IS: 1726–1991)	HEPCO/ NECO/ RIF/BIC
20.	C.I. Grating	HEPCO/ NECO/ RIF/BIC
21.	Gulty Traps	Perfect/RK/Anand
22.	Ball Valve	CIM /RB (Italy)/DRP/
23.	CI Butterfly / Sluice valves	SKS/IVC/Audco/Advance/Intervolve/DRP/ CIM/
24.	Non return valve	
	a) G.M	CIM/Leader/Zoloto/RB (Italy)/
	b) C.I	CIM /Advance/Intervolve
25.	Air Vent Valve	OR/Jainsons Industries (JSI)/VB
26.	Pipe Supports, Hangers	Intello Tech/Camry
27.	Flanges	Table 'H'/Class 150
28.	Anti Corrosive Bitumastic Paint	Asian/Burger/J&N
29.	Epoxy Paint	Asian/Berger /J&N
30.	C.I. S&S / Double flanged fittings specials	Electrosteel/Kartar/National/ Kesoram/Kapilansh
31.	WTP Equipments/Accessories	Fontus / Ion-Exchange /Thermax

NOTE: If the makes have been specified in the DNIT, then item of those makes will be incorporate in the works.

DETAIL NOTICE INVITING TENDER

Name of work “D.I. Raw Water Line of 100mm for Landscaping /Irrigation in MDU, Rohtak”

App. Amt. Rs. 35.00 lac
Earnest Money Rs. 70,000/- / Rs. 35,000/-
Time limit: 03 months

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
		SECTION-3 Raw water supply for landscaping /irrigation system:		
1/NS	2000 mtrs. 1000 mtrs. 100 mtrs. (LR)	Providing and laying S&S centrifugally Cat (Spun)/Ductile iron pipes conforming to IS:8329 as per entire satisfaction of Engineer-in-Charge: i) 100mm dia ductile iron class K-7 pipes Jindal / Balaji / Electrosteel ii) 100mm dia ductile iron class K-7 pipes Jindal / Balaji / Electrosteel iii) 200mm dia ductile iron class K-7 pipes (200 mm dia ductile pipes will supplied by the Department)	Rate to be quoted by the contractor Rate to be quoted by the contractor Labour rate to be quoted by the contractor	Per mtr. Per mtr. Per mtr.
2/6.10(a)	300 cum	Excavation of trenches in streets, lanes or in open areas for storm sewer, sewers running by gravity and manholes to full depths as shown in drawings including shoring, timbering of poling boards, frame system type, dressing to correct sections and dimensions, according to templates and levels, dewatering, provision for diversion of traffic, cutting trees and bushes etc night signals, profiles, pegs, sight rails, bonding rods crossing over trenches for access to the houses, watching , fencing etc. fixing and maintenance of caution boards, refilling of trenches, watering of refill, in 15 cm layers, ramming and restoration of unmetalled or unpaved surface to original site of work upto a lead of 1 KM in ordinary soil. (a) for depths of excavation not exceeding 3 meters below ground level	@ Rs. 1189.00 (Rs one thousand one hundred eighty nine only)	P.100 cum

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Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
3/NS	1000 mtrs.,	Dismantling old 250mm to 300mm dia C.I. pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes at site lead upto 50 metres complete in all respect as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Per mtr.
4/NS	36 nos. 05 nos.	Providing and fixing C.I. sluice valves (with cap) 2 nd class complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) as per entire satisfaction of Engineer-in-Charge: i) 100mm diameter 2 nd class ii) 150mm diameter 2 nd class	Rate to be quoted by the contractor Rate to be quoted by the contractor	Each Each
5/NS	25 qtl.	Providing and laying D.I. specials upto 600mm dia of class K-12 suitable for push-on jointing as per IS: 9523 as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Per qtl.
6/NS	500 joints 250 joints 30 joints	Providing push-on-joints to centrifugally (spun) ductile iron pipes including testing of joints and including the cost of rubber gasket as per entire satisfaction of Engineer-in-Charge: i) 100mm dia pipes ii) 150mm dia pipes iii) 200mm dia pipes	Rate to be quoted by the contractor Rate to be quoted by the contractor Rate to be quoted by the contractor	Per joint Per joint Per joint

Sr. No. / HSR	Qty.	Description	Rate (Rs.)	Unit
7/29.84(c)	30 nos.	Constructing brick masonry inspection chamber size as given below upto 0.60 metre average depth in cement mortar 1:5 lime concrete with 40 percent lime mortar 2:3 in foundation cement concrete 1:2;4 benching 12 mm thick cement plaster 1:2 with a floating coat of 1 mm thick of neat cement RCC1:2:4 slab 100 mm thick/C.C. topping, 50 mm thick with 455 mm x 455 mm/455mmx610 mm inside light duty C.I. inspection chamber cover and frame weight as per I.S. specification painted with 3 coats of black bitumastic superior paint complete as per standard design. (c) size 600 mm x 900 mm inside (with 455 mm x 455 mm cover and frame light duty single seal weighing 20 kg with RCC slab)	@ Rs. 690.00 (Rs. Six hundred ninety only)	Each
8/NS	02 nos.	Providing and fixing 100 mm dia C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. Complete (The tail pieces, tapers etc. if required will be paid separately) as per entire satisfaction of Engineer-in-Charge.	Rate to be quoted by the contractor	Each