

**MISHRA DHATU NIGAM LIMITED
P.O.KANCHANBAGH, HYDERABAD**

Part-II (PRICE BID)

**CIVIL WORKS FOR EXTENSION OF PLANT
RECEPTION AT MAIN GATE, MIDHANI,
KANCHANBAGH, HYDERABAD-58.**

PURCHASE DEPARTMENT**Tender Notice No: MDN/PUR/AP2061071/ADVT/313/16-17****Date:- 15-03-2017****To,**

Dear Sir,

**Sub: - CIVIL WORKS FOR EXTENSION OF PLANT RECEPTION AT MAIN GATE,
MIDHANI - req**

1. Please find enclosed herewith a Tender Enquiry for the above, you are requested to furnish your offer in a sealed cover superscripting the envelope with name of work and last date of submission, along with EMD of Rs 23,750/- drawn in favour of MIDHANI. The tenders without EMD amount will be rejected; request for adjustment from pending bills will not be entertained. Estimated Value of work is Rs 9.50 lakhs.
2. Tender shall be submitted in tender box kept at corporate office on or before 31-03-2017 up to 10.30 hrs.
3. The period of completion of job will be 90 days from the date of handing over of site. Time is essence of the contract; contractor has to mobilize materials & labour to complete within 90 days time period.
4. The tenderer shall inspect the site of work and understand the scope of work before quoting. No extra amount will be paid on account of misunderstanding either in scope of work, specification, drawings, site conditions etc.
5. All materials required for the work shall be arranged by the contractor unless until specified in Bill of Quantities.
6. The work shall be carried out as per MES-SSR-2009 specifications.
7. This is an item rate contract and the quantities are approximate, but payment will be made only on actual work done based on joint measurement.
8. Three R. A Bills and one Final Bill will be paid. The contractor has to furnish all material bills along with each bill (if any).
9. R.A Bill will be paid within 15 days from the date of certification of Engineer-in-charge. However, Final payment will be made within 30 days after satisfactory completion of work and certification by Engineer-in-charge.
10. a) **Security Deposit (S.D)**: The successful tenderer has to submit 5% of Work order value as a security deposit in the form of D.D/ Bank Guarantee at the time of entering / signing the contract. Further, EMD deposited will be adjusted in 5% Security Deposit & the security deposited will be released after satisfactory completion of work and after certification of Engineer-In- Charge.
b) **Retention Money** : A sum of 5% of gross value of work order will be deducted from each running bill and final bill. The same will be released after the completion of defect liability period of 12 months and after certification of Engineer –In- Charge. Also, contractor can submit Bank Guarantee for equivalent amount in the prescribed format issued by nationalized or scheduled bank and same shall be valid for defect liability period + 3 months claim period.

11. The security and safety rules of MIDHANI to be followed. The contractor shall take care of all labour laws regarding minimum wages, ESI, PF, C.A.R. Policy, Group Insurance etc., Midhani is no way responsible in this respect. Midhani is not liable for any claim in respect of any accidents during the work.
12. (a) MIDHANI reserves the right to operate partial or delete any item specified in BOQ without any compensation to contractor for the items un-operated or deleted.

(b) If at any time after acceptance of the tender MIDHANI feels that for any reasons whatsoever, if the whole or any part of the contract services is not required to be carried out, notice shall be given in writing of the fact to the contractor and upon receipt of such notice, the contractor shall stop the execution of such services as indicated in the notice forthwith. The contractor shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the services in full, but which he did not derive in consequence of the foreclosing of the services / contract. Contractor shall be paid at contract rates for the full amount of the work executed including such additional services as may be rendered necessary by said foreclosing.
13. Any new items (viz. supply of material, labour, skilled works etc) will be paid as per (a) or (b) whichever is less:
 - a) As per MES-SSR 2016 rates with applicable Percentage Index at that time.
 - b) As per market rate analysis.
14. The contractor should not cause any loss or damage to MIDHANI property/or personnel, if any loss or damage is caused the cost of the same will be recovered from the bills by MIDHANI, which will be final.
15. The quantities are subjected to $\pm 10\%$ variation and the contractor has to carry the work on the same rates, terms and conditions within the variation limits prescribed. However, if the quantities exceed beyond 10% then the rates adopted shall be lowest of the rates quoted or the internal estimate.
16. If the contractor fails to receive the work order within a week time from the date of intimation to him or if the contractor does not start the work within 3-7 days from the date of handover of site, or if the work is abandoned / stopped without bringing proper notice to Engineer-in-charge, the contract will be terminated and balance work will be carried out at the cost and risk of contractor.
17. Liquidated Damages: -
 - a) If the work is not completed within stipulated time, liquidated damages at 1% per week delay up to maximum of 10% total value of work will be deducted.
 - b) If the delays are not attributed to the contractor, the competent authority holds the right to waive off the L.D or reduce the L.D as the case may be.
18. Midhani reserves the right to penalize
 - a) If the contractor fails to submit the 5% Security deposit within the stipulated period, then penalty of Rs 1000 per day maximum of 10,000.00 will be collected and further delay will empower MIDHANI to termination of contract and apply risk purchase.

- b) If the contractor fails to receive the work order within 3 days of intimation, then a penalty Rs 500 per day will be levied subjected to maximum of Rs 5000.00. Further delay will empower MIDHANI to termination of contract and apply risk purchase.
- c) Contractor has to maintain "HINDRANCE REGISTER" which is to be certified by both MIDHANI Site engineer and contractor engineer before release of final bill.

19. The offer shall be valid for 3 months from the date of opening of tender.
20. Interested parties may attend tender opening on 31-03-2017 at 11:00 hrs.
21. Incomplete or partially filled tenders will be rejected. Also, conditional offers are liable for rejection. MIDHANI reserves the right to accept or reject any or all tenders without assigning any reasons.
22. Contractor has to maintain site record, hindrance record, record for steel, cement etc.
23. Site has to be cleaned by the contractor before handing over to MIDHANI after completing the work. The final bill will be processed only after obtaining site cleaning certificate from the Engineer-in-charge.
24. The Earnest money deposit can be encashed if the tenderer withdraws his tender proposals / modifies / changes / alters / impairs / derogates the tender document on his own after the first cover is opened or within the subsistence of the validity period of offer or fails to accept the Letter of Award (LOA) issued by MIDHANI or fails to submit security deposit or fails to turn-up and execute contract agreement or fails to commence the work as per LOA. Such bidders will be banned subject to action as may be deemed fit. In case of unilateral revision or withdrawal of offer by the bidder as above, shall also result in rejection of bid without notice. If there is any authentic information about the intending tenderer having formed a cartel / submitted Non-earnest bids, the tender will be cancelled and the Earnest Money Deposit of all the tenderer shall be forfeited, besides initiating actions like banning as may be deemed fit.

Yours faithfully,
For Mishra Dhatu Nigam Limited

T.RaghuRam
Addl. General Manager (Purchase)

- DECLARATIONS: - 1) I have seen the site and understood the full scope of work, specified in tender, BOQ, drawings etc.
- 2) I agree to return all the documents along with this offer.
- 3) I have taken into account of points circulated in Minutes of Pre bid Meeting circulated on MIDHANI website, if posted

CONTRACTOR
SIGNATURE AND SEAL

P.S;- 1. All Parties shall attend pre bid meeting on 23-03-2017 at 11.00Hrs PURCHASE DEPARTMENT.

EMPLOYER

CONTRACTOR

<u>BOQ for CIVIL WORKS FOR EXTENSION OF PLANT RECEPTION AT MAIN GATE, MIDHANI</u>							
S.No	Description	Unit	Quantity	Rate		Amount	
				Rs.	Ps.	Rs.	Ps.
1A	a) Earthwork in Excavation by mechanical means (hydraulic means) / manual means over area including disposal of excavated earth, lead upto 50 m from natural ground level and backfilling of soils wherever & whenever required as directed by E.I.C. Disposed earth to be leveled and neatly dressed.	Cu.m	76.00				
1B	b) Hard Rock Excavation in foundations and trenches in hard rock without blasting as defined by IS:1200 in both dry and wet conditions including dewatering the subsoil and rainwater to keep the excavation dry, levelling and dressing the bottom of excavation to correct. at all heights and levels.	Cu.m	15.00				
2	Supply & Placing Plain cement concrete (1:4:8) (cement: fine aggregate: Coarse aggregate) for foundations and under flooring bed using coarse aggregate 40mm size hard, machine crushed granite from approved quarry including cost and conveyance of all materials like cement, sand, coarse aggregate, water etc. to site, including , charges, sales & other taxes on all materials and including all charges for machine mixing, laying concrete in foundations and under flooring bed, ramming in 15 cm layers finishing top surface to the required level curing etc., and overheads & contractors profit complete for finished item of work.	Cu.m	7.70				

3	Supply and placing of the Design Mix concrete M25 grade including shuttering and corresponding to IS 456 with minimum cement content of 380Kgs per 1 cum of concrete (any plus or minus variation in the cement consumption as per mix design is allowed) using Ready Mix Concrete(RMC). with 20mm size graded machine crushed hard granite metal (coarse aggregate) (consisting of nominal size metal of 20mm, 13.20/12.50mm, 10mm and 6mm) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and including , charges, sales & other taxes on all materials, centering using Steel scaffolding pipes, jack props, wallers, foot plates, brackets, steel centering plates etc., including all operational, incidental and labour charges such as weigh batching, machine mixing, laying concrete, curing etc., and overheads & contractors profit complete but excluding cost of steel and its fabrication charges for finished item of work.For small quantities site mix is allowed.	Cu.m	27.00		
4	Supplying, fitting and placing Fe-500 bar-TMT reinforcement in RCC works complete as per drawings and technical specifications for bars below 20mm dia including over laps and wastage, where they are not welded including cost and conveyance of steel, binding wire etc., lifting charges of steel, placing in position, tying with binding wire, all tools etc., and overheads & contractors profit complete for finished item of works. Ignore over laps and same will be paid separately.	kgs	1625.00		
5	Supply & Filling with Murram in basement, in layers not exceeding 150mm thick, consolidating each deposited layer by water and compacting, leveling, surface dressing including all incidental, operational, labour charges, cost and conveyance of Murram to site, etc., complete for finished item of work	Cu.m	40.00		

6	<p>Providing plinth protection with a bed of 100mm thick PCC(1:5:10) using 40mm size HB Granite metal and on top of PCC, 20mm thick granolithic concrete flooring with CC(1:1:2) prop. Using 6mm to 12mm size graded hard granite machine crushed metal laid monolithically already laid, in alternate panels of size not exceeding 1.5 x 1.5 mtrs and providing 5mm thick glass strips between the panels and finishing the top surface to required smoothness and slopes including grooves, thread lining as directed by the Engineer-in-charge including cost and conveyance of all materials to site including , charges, sales & other taxes on all materials and operational & incidental and labour charges like mixing of cement concrete, laying, curing, lift charges etc., and overheads & contractors profit complete including cost of CC bed for finished work.</p>	Sq.m	25.00		
7	<p>Providing Antitermite treatment as per IS 6315 (Part - 2) 2001 (Pre-constructional chemical treatment measures) along the internal & external vertical faces of the columns, plinth beams, basement and top surface of the basement filling below flooring bed as per the specified procedure conforming to IS 6315 (Part - 2) 2001 and other relevant approved specification duly using chlorpyriphos/Lindane emulsifiable concentrate 20% with 1% concentration @ 7.5 liters/sqm of the vertical surface & @ 5.0 liters/sqm of the horizontal surface of the substructure to a depth of 500 mm around columns & 300 mm deep around plinth beams, basements & floor filling area including excavation channel along the wall & rodding etc & cost & conveyance of all materials to the site, cost of labour for spraying, rodding etc and overs heads and contractor profit complete for finished item of work as per the approval of the Engineer-in-charge.</p>	Sq.m	45		

8	Supply & Construction fo Coursed Rubble Stone masonry in CM (1:6) prop: (Cement: Sand) 2nd sort using hard granite stonee carted from approved quarry including cost and conveyance of all materials like cement, sand, water, stones etc., from approved quarry, to site and including , charges, sales & other taxes on all materials including bond stone of 24 x 24 x 39cm, labour for cutting stone to required size and shape, mixing, of cement, mortar, construction, curing etc., and overheads & contractors profit complete for finished item of work in foundation and basement.	Cu.m	5.4		
9	Supply & Construction of Brick masonry for panel walls 230mm thick in superstructure with CM(1:6) prop: (cement:sand) using second class bricks of size 23 x 11 x 7 cms from approved source having minimum crushig strength of 40 Kg/Sq.cm including cost and conveyance of all materials like cement, sand, bricks, water etc, to site, including , charges, sales & other taxes on all materials and such as labour charges, like mixing cement mortar, scaffolding charges, constructing masonry, lift charges, curing, etc. and overheads & contractors profit complete for finished item of work.	Cu.m	38.5		
10	Supply & Construction of Reinforced Brick Masonry walls of 110mm in CM(1:4) using 2nd bricks having a crushing strength of not less than 35.00Kg/cm2 and using two mild steel bars of 6m dia in every third layer of brick masonry, with free joints of the main block work including cost and seignorage charges and conveyance of all materials and water from approved sources to work site and all operational, incidental, labour charges such as scaffolding mixing mortar constructing masonry lift charges, curing etc. complete but excluding the cost of steel and its fabrication charges for finished item of work.	Sq.m	33.20		

11	<p>Supplying and fixing T.W. flush doors with teak wood (Second class) frame of finished size 65 x 125mm and 35mm thick solid core flush door shutters with both sides commercially treated film facing i.e. plastic (Phenol - formaldehyde) improved coating on commercial facing of shutters with internal T.W. lipping 35 x25mm around complete for toilet doors including cost of 6 No's holdfasts of size 200mm x 50mm x 6mm flats fabricated and fixed in CC (1:3:6) bed blocks of size 300 x 100 x 150mm including anodised aluminum hardware fittings such as 6 no's butt hinges 125 x 63 x 3.2mm, 1no. Tower bolts 300 x 10mm and 1 no 200 x 10mm, 1 no aldrop 300 x 16mm, 2 no's handles 125mm long, 1 no door stopper. (Aluminum fittings to be of ISI marked.</p>	Sq.m	7.56		
12	<p>Supply and fixing in position powder coated aluminum fully glazed ventilators / windows of approved colour using Aluminium 2 track box section frame of size 61.85 x 31.75 mm x 1.50 mm for top and verticle sides and 61.85 x 31.45 x 1.50 mm for frame bottom using sliding shutters made out of aluminium section 40 x 18 x 1.45 mm for inside the h-section for top and bottom and plain section for ends including making window wheatring seal proof and mounted in fibre wheels 2 nos for each shutter and fixed 5 mm TH. plain float glass 1st quality with necessary PVC rubber beeding around including providing 2 nos maruti lock cleat for window with 7.5mm thick aluminium grill as approved by the department @ 3.58/kg/m2 including cost and coveyance of all materials, labour charges for making, erecting in position etc., complete.</p>	Sq.m	7.00		

13	Providing 18mm thick average cement plaster in two coats, 1st coat 12mm thick in CM (1:6) and top coat 6mm thick in CM(1:4), finishing the surface smooth and even, making the corners true including curing, scaffoldings, hacking etc., complete over brick walls and RCC surfaces to the interior face of the building complete including roughening of first coat plaster surface to receive 2nd and final coat of plaster and providing chicken mesh at junctions of concrete, masonry etc., and including making grooves as directed .	Sq.m	245.00		
14	Providing 20mm thick average cement plaster in two coats, 1st coat 12mm thick in CM(1:6) and top coat 8mm thick in CM(1:4) , mixed with water proofing compound conplast Prolapin 421 IC at 130ml per bas of cement, finishing the surface smooth and even, making the corners true including curing, scaffolding, hacking etc., complete over brick walls and RCC surfaces at all heights of the building complete including roughening of first coat plaster surface to receive 2nd and final coat of plaster and providing chicken mesh at junctions of concrete, masonry etc., and including making grooves as directed.	Sq.m	90.50		
15	Providing 10mm thick average cement plaster in single coat of CM(1:4) finishing the surface smooth and even including curing, scaffolding, hacking etc., complete over surfaces to the Ceiling complete .	Sq.m	32.00		
16	Providing & laying 10mm thick coloured vitrified tiles of 2'x 2' in C.M(1:6) 20mm thick base, the cost includes leveling and finishing joints with white/coloured cement matching the colour of tiles(10mm with water absorption's less than 0.08% and conforming to IS: 15622). The cost of providing & fixing 100mm skirting to walls is also to be included..	Sq.m	77.00		

17	Providing and fixing self design ceramic tiles of size 2' x 1' (7 mm thick) of 1st quality and of approved make for verticle faces over and inclusive of thick base plaster in cement mortar 1:3 (1 cement : 3 Coarse sand) including a floating cement slurry including grouting/filling the joints with white cement slurry mixed with matching pigment, curing, cleaning and leaving/making necessary holes for sanitary connection complete for dadoing upto full height in toilets.	Sq.m	56.00		
18	Providing & fixing non-skid ceramic tiles 1' x1' (10mm thick) of over 20mm thick bed in cement mortar (1:3) including jointing & polishing in cement to match the shade of tiles.	Sq.m	6.00		
19	Providing & painting two or three coats OBD painting with luppum finish.	Sq.m	282.00		
20	Supplying & painting two or more ACE Ext. including surface painting	Sq.m	195.50		
21	Providing & applying two coats of Synthetic enamel paint of approved brand, and shade over a coat of wood primer/Zinc chromate primer including preparing the surface with putty to give an even finish including the cost of scaffolding, brushes etc., complete over new wood/steel work for finished item of work, to give an even shade .	Sq.m	25.20		
22	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc., consisting of following operations: Applying and Grouting a slurry coat of neat cement using 2.75Kgs/sqm of cement admixed with proprietary water proofing compound confirming to IS: 2645 over the RCC slab including cleaning the surfaced before treatment.	sqm	54.00		
	Laying Cement concrete using broken bricks/brick bats 25mm to 100mm size with 50% of cement mortar 1:5 (1 cement : 5 Caorse sand) admixed with propertary water proofing compound confirming to IS:2645 over 20mm thick layer of cement mortar of 1:5 admixed				

	After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS: 2645 finishing the surface with 20mm thick jointless cement mortar of mix 1:4 ...				
	Finishing the surface with 20mm thick jointless cement mortar of mix 1:4 admixed with proprietary water proofing compound conforming to IS:2645 and finally finishing the surface with travel with neat cement slurry and making of (300 X 300,,) square.				
	The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and final test. All above operations to be done in order and as directed and specified by the Engineer-in-charge.				
23	Providing & Fixing ISMC 150 channels back to back insertion including chipping walls and grouting with (1:1.5:3) concrete.	kgs	155.00		
24	Providing & Fixing Gypsum false ceiling with gypsum board 12mm thick including Aluminium grid 605mm x 605mm by supporting metal studs & adjustable 6mm MS hinges. The cost includes cost of joining with gypsum tape and finishing as a seamless surface with Plaster of Paris and one coat of primer and two coats of OBD complete as per the instructions of Engineer-In-Charge..	Sq.m	52.00		
	<u>Plumbing items</u>				
25	Providing and fixing Water Closet squatting pan (Indian type W.C. pan) with 100mm P or S trap, Single Flush low level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, also including 15mm inlet connection with brass unions at ends including one 15mm nb CP brass angle valve with all fittings and fixtures complete including cutting and making good the walls and floors wherever required. including P trap or S trap of Indian W.C shall be encased on CC (1:2:4) 6" around well above the joints to stop leakage at the joint etc, complete including cost and conveyance of all materials to site, cost of CC bed, labour charges and , charges etc., complete for finished item of work.				

	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	Each	1.0		
26	Providing and fixing white vitreous china pedestal type Water Closet (European type) with seat and lid, Dual low level white vitreous flushing cistern and C.P. flush bend with fittings & C.I. brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, also including Matching colour polypropylene seat cover with necessary C.P. brass hinges, rubber bushes etc. including two nos 15mm nb CP brass angle valve also including 15mm inlet connection with brass unions at ends also cutting and making good the walls and floors wherever required including cost and conveyance of all material to site, for finished item of work for all floors.				
	W.C. pan with ISI white solid plastic seat & lid including integrated Cistern	Each	1.0		
27	Providing and fixing full pedestal wash basin colour with C.I. brackets, 15mm C.P. brass pillar taps of model and as specified in the list of makes with C.P. inlet connection with brass unions at ends, including painting of fittings and brackets, cutting and making good the walls/ floors wherever necessary all complete as per specifications also including 40mm PVC waste pipe of heavy grade with necessary pipe fittings of required length of approved make.				
	Coloured vitreous china wash basin size 550x 430 mm including full pedestal with a 15mm C.P. brass pillar tap.	Each	2.00		
28	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers including cost and conveyance of all materials to site and all operational, incidental labour charges etc, complete for finished item of work.				
	Rectangular shape 600x450mm	Each	2.00		

29	Providing and fixing C.P brass long body bib cock of approved quality and make conforming to IS standards etc all complete as per standard specifications.				
	15mm nominal bore	Each	2.00		
30	Providing and fixing C.P brass stop cock (concealed) of standard design and of approved make conforming to ISI:8931 of approved quality and make conforming to IS standards etc all complete as per standard specifications.				
	15mm nominal bore	Each	2.00		
31	Providing and fixing C.P brass angle valve for basin, sink, and geyser points of approved quality conforming to IS:8931) of approved quality and make conforming to IS standards etc all complete as per standard specifications.				
	15mm nominal bore	Each	2.00		
32	Providing and fixing CP towel rail complete with brackets fixed to wooden cleats ,with CP brass screws with concealed fitting arrangement of approved quality and make conforming to IS standards etc all complete as per standard specifications.				
	600 mm long towel rail	Each	2.00		
33	Providing and fixing vitreous china recessed soap tray having length of 138mm, breadth 102mm, height of 75mm including making the necessary cutouts for recessing, grouting with concealed fitting arrangements	Each	2.00		
34	Providing and fixing CP brass coat double hook of approved quality and make complete with material of fixing of approved quality and make conforming to IS standards etc all complete as per standard specifications.	Each	2.00		
35	Providing and fixing health faucet of model and make as specified in list of makes all complete as per specifications. Including providing CP Brass 2 way Bib Tap of approved quality and make, conforming to IS standards etc all complete as per standard specifications.	Each	2.00		
36	Providing and fixing C.P. brass waste coupling for wash basin and sink including CP waste fittings complete 32 mm dia complete in all respect of model and make as specified in list of makes conforming to IS standards etc all complete as per standard specifications.	Each	2.00		

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37	Providing, laying and jointing SWR UPVC pipes of Type B as per IS 13592 of approved make for soil, waste and vent pipes with solvent joints including necessary fittings like bends, tees, Y, hanger bars of required length etc, including cutting and making good masonry or concrete floor, walls and testing of pipelines, painting with paint of approved make etc. all complete in sunken slab.				
a)	110mm dia.	Metre	20.00		
b)	75mm dia	Metre	40.00		
38	Providing and fixing UPVC floor trap with 75mm dia outlet of approved make including stainless steel grating on top of the trap of approved make etc. complete all as specified and directed	Each	4.00		
39	Providing and fixing uPVC multi floor trap with 75mm dia outlet of approved make including connection of waste pipe line from wash basin with tail piece or boss tee, stainless steel grating on top of the trap of approved make etc. complete all as specified and directed	Each	2.00		
40	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings also bends, elbows, tees, sockets, unions, plugs etc. with i/c fixing the pipe with GI clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including fixing with suitable M.S bracket / clamps / hangers including testing the pipelines as per specifications, cutting and making good the walls ,etc all complete excluding the cost of MS brackets which shall be paid extra etc complete as per direction of Engineer in Charge.				
a)	32mm dia.	Metre	12.00		
b)	40mm dia	Metre	10.00		

41	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings also bends, elbows, tees, sockets, unions, plugs etc. with i/c fixing the pipe with GI clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including fixing with clamps / hangers including testing the pipelines as per specifications, cutting and making good the walls, etc all complete as per direction of Engineer in Charge.				
a)	20mm dia.	Metre	35.00		
42	Providing and fixing ball valve (brass) of approved quality, High or low pressure with plastic floats etc all complete as per direction of Engineer in Charge.				
a)	32 mm diameter	Each	2.00		
43	Constructing masonry chamber 60x60x75 cm, inside with Second class brick work in cement mortar 1:4 (1 cement: 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement:5 fine sand: 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design etc all complete as per direction of Engineer in Charge.	Each	2.00		
44	Providing laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints, including cost and conveyance of all materials to site and all labour charges for finished item of work etc. complete.				
a)	100 mm diameter	Metre	10.00		
b)	150 mm diameter	Metre	150.00		

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45	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand), R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 (1cement : 4 coarse sand : 8graded stone aggregate 40 mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, and making necessary channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg):	Each	1.00		
46	Providing & laying cement concrete 1:5:10 for RCC NP2 class pipes 100mm thick for bedding and haunches upto the center of pipe as per approved shop drawings including shuttering & timbering etc. 300 mm dia R.C.C. pipe complete.	Metre	10.00		
47	Construction of ground water re-charge pit 1200 mm x 1200mm in size upto 2000 mm deep with following specifications and including supplying, installation & execution of all jobs, complete as per drawings and directions of Engineer-in-Charge.	Each	1.00		
	Peripheral brick masonry in cement mortar 1:4 (1cement: 4 coarse sand) with necessary 15 mm thick cement plaster 1 :3 neat finish. Foundation concrete 1:5:10 (150mm thick).				

	1200mm thick dry stone aggregate bed (filled with boulders 150-230 mm size) over which 600 mm thick metal layer of 40 to 60mm plus 600 mm thick metal layer of 15 to 20mm over and upper most layer of 300 mm with coarse sand of 3 to 5 mm as filtering media. The top 600 mm shall be left open, with RCC grated cover on top including one no UPVC 160 mm dia (6 kg/cm ²) perforated pipe with 8 mm dia perforations protected by a cowl on upper. with Supplying and fixing PVC coated M.S. foot rests.				
	150mm thick R.C.C. (1:2:4) slab to cover the well at top including necessary centring, shuttering and reinforcement with required openings /cut-outs etc. supplying and fixing 1 Nos. 560mm dia heavy duty S.F.R.C. manhole cover and frame, complete in all respects as per drawings.				
	Rate to include excavation back filling and all other materials & operations necessary for completing the job.				
48	Supply of				
	a) Skilled labour	Nos	10.00		
	b) Unskilled labour	Nos	15.00		
49	Providing and fixing on wall face/Concealed unplasticised rigid PVC rain water pipes conforming to IS:13592 Type B including jointing with seal ring confirming to IS:5382 leaving 10 mm gap for thermal expansion, Single socketed pipes for rainwater pipes including all fittings like bends, tees, shoes,etc., MS fabricated brackets as per requirements, cutting and making good the walls/ under floors, slabs etc. all complete as directed by the engineer in charge				
a)	150 mm diameter	RM	20.00		
				TOTAL AMOUNT IN Rs.	

In words...

EMPLOYER

CONTRACTOR