

Price Bid Format			Volume-II of NIT			
Name of the Work: Civil, Structural & Architectural works for 1.0 MLD Sewage Treatment Plant at HPVP, BHEL Township, Vizag.						
Tender Ref No.T0ATX00012, dated:08.02.2020						
Item No.	Item Description	Unit	Qty	Weightage (in %)	Unit Rate	Total Amount
A	B	C	D	E	F	G
1	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be leveled and neatly dressed. Any Kind of Soil	cum	985	0.7790%		
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed as per direction of Engineer-in -charge.	–	–	0.0000%		
2.a	Ordinary rock	cum	100	0.1388%		
2.b	Hard rock (Blasting prohibited)	cum	50	0.1946%		
3	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering, etc and disposing of surplus excavated soil as directed, within a lead of 50m. Pipes, cables etc. exceeding 80mm dia but not exceeding 300mm dia.	Metre	50	0.0708%		
4	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50m and lift up to 1.5m in all kind of soil.	Cum	750	0.5922%		
6	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	cum	60	0.3458%		
7	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.	–	–	0.0000%		
7.a	all kinds of soil	cum	1000	0.3249%		
7.b	Ordinary or hard rock	cum	800	0.4661%		
8	Surface dressing of ground including removing vegetation and in-equalities not exceeding 15 cms in deep and disposal of rubbish upto 1.5m lift and lead upto 50m (All kinds of soil)	sqm	1500	0.1314%		

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9	CONCRETE WORK					
9.a	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) -M10	Cum	77	2.3821%		
9.b	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	70	2.4095%		
11	REINFORCED CEMENT CONCRETE CONCRETE WORK :Centering and shuttering including strutting, propping etc and removal of form for :	–	–	0.0000%		
11.a	Foundations, footings, bases of columns etc for mass concrete	Sqm	600	0.7307%		
11.b	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	Sqm	1000	2.3772%		
11.c	Suspended floors, roofs, lanings balconies and access platform.	Sqm	600	1.5910%		
11.d	Shelves (cast in situ)	Sqm	30	0.0795%		
11.e	Lintels, beams plinth beams, girders, bressumers and cantilevers	Sqm	200	0.4306%		
11.f	Columns, Pillars, Piers, Abutments, Posts and Struts,	Sqm	100	0.2938%		
11.g	Strair, except spiral-staircases	Sqm	50	0.1317%		
11.h	Arches , domes vaults upto 6m span	Sqm	5	0.0357%		
11.i	Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands,copings, bed plates, anchor blocks and the like.	Sqm	10	0.0122%		
11.j	Edges of slabs and breaks in floors and walls under 20 cm wide.	metre	10	0.0077%		
11.k	Weather shade , chajja, corbels etc. including edges	sqm	10	0.0328%		

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12	Steel Reinforcement for RCC work including straightening, cutting, bending, planing in position and binding all complete. Thermo-Mechanically Treated bars of grade Fe-500D or more.(Corrosion resistant steel)	Kg	75000	26.6541%		
13	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.	—	—	0.0000%		
13.a	All works upto plinth level	cum	330	13.3574%		
13.b	All works above plinth level upto floor V level	cum	270	12.2911%		
13.c	Extra for providing richer mixes at all floor levels: Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum) All works upto plinth level Note:- Excess/less cement over the specified cement content used is payable /recoverable separately.	cum	460	0.2007%		
14	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	100	0.4224%		
15	Providing and laying in situ five course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 litre per sqm, 2nd & 4th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/ sqm weight consisting of five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately).	sqm	60	0.1211%		
16	Supply, fabricating and fixing of mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc. including welding, bolting, cutting, drilling, scaffolding, setting etc. all complete.	kg	1000	0.5328%		
17	Supply, fabrication and fixing of GI pipe hand railing (900 mm high) of 32 mm/40 mm dia (Medium Grade) including transportation, loading/unloading, painting etc. all complete..	kg	1785	1.1236%		

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18	Structural steel work in single section, fixed with or without connecting plate,including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	168	0.0617%		
19	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	2100	0.8914%		
20	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	kg	1500	0.6197%		
21	Supply, Fabrication, transportation, delivery at site and erection, installation and alignment of mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc. including welding, cutting, grinding, threading, drilling etc. all complete. (Similar item)	kg	50	0.0270%		
22	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.	—	—	0.0000%		
22.a	75 mm diameter	metre	5	0.0047%		
22.b	110 mm diameter	metre	100	0.1484%		
23	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall	—	—	0.0000%		
23.a	15 mm nominal outer dia Pipes	metre	10	0.0090%		
23.b	20 mm nominal outer dia Pipes	metre	10	0.0113%		
23.c	25 mm nominal outer dia Pipes	metre	10	0.0136%		
24	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with ConbextraGP-1 or equivalent. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	cum	1	0.0338%		
25	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.	cum	4	0.0221%		

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26	Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).	sqm	4	0.0070%		
27	Supply and fixing of 30thk FRP grating including all fixtures supported on RCC/steel members (similar item)	sqm	10	0.2583%		
28	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.	–	–	0.0000%		
28.a	75 mm	each	20	0.0229%		
28.b	110 mm	each	20	0.0228%		
29	Providing and installing under deck insulation using minimum 0.05 mm thick aluminium foil on exposed surface followed by 0.56 mm dia and 25 mm mesh GI wire netting, fixed at various elevations with rawl plugs including clips but excluding cost of insulation.	sqm	20	0.0628%		

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30	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : 12.5 mm thick tapered edge gypsum fire resistant board conforming to IS: 2095- Part I	sqm	20	0.1158%		
31	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in: Cement Mortar 1:6 (1 cement : 6 coarse sand).	cum	10	0.2763%		
32	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	30	1.0516%		
33	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	sqm	160	0.6186%		

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34	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	per litre	5000	0.2276%		
35	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	125	0.3535%		
36	Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete	—	—	0.0000%		
36.a	450 mm dia RCC pipes.	metre	30	0.3647%		
36.b	600 mm dia RCC pipes.	metre	30	0.4743%		
37	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	per 50kg cement	14,119.00	4.2509%		
38	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	100	0.2414%		
39	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	50	0.1397%		

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40	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):	–	–	0.0000%		
40.a	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	sqm	20	0.1261%		
41	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-incharge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).	kg	30	0.0902%		
42	Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width	metre	100	0.0392%		
43	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge. Powder coated minimum thickness 50 micron aluminium tubular handle bar	each	5	0.0160%		
44	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators	kg	50	0.0989%		
45	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium	each	50	0.0174%		
46	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-incharge. Powder coated minimum thickness 50 micron aluminium	each	50	0.0214%		

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47	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	kg	400	1.0269%		
48	Supplying and fixing rolling shutters of approved make, made of required size 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 and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover.	sqm	9	0.1309%		
49	Providing and fixing ball bearing for rolling shutters.	each	25	0.0595%		
50	Extra for providing mechanical device chain and crank operation for operating rolling shutters. Exceeding 10.00 sqm and upto 16.80 sqm in the area	sqm	15	0.0682%		
51	Providing and fixing to existing door frames. 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	sqm	3	0.0339%		

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52	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with awall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineerin-Charge.	metre	16.8	0.0463%		
53	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	20	0.4980%		
54	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cum	10	0.0626%		
55	Providing and constructing brick masonry road gully chamber 50x45x60 cm with well burnt modular clay bricks crushing strength not less than 35kg/cm2 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame complete as per standard design.(similar work)	cum	1	0.0288%		
56	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand)	sqm	300	0.3258%		
57	20 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand)	sqm	300	0.4524%		
58	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand)	sqm	60	0.0542%		
59	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	300	0.1809%		
60	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade: New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	sqm	300	0.1823%		
61	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.	—	—	0.0000%		
61.a	On steel work	sqm	100	0.0769%		
61.b	On concrete work	sqm	322	0.2517%		

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62	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	120	0.4184%		
63	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : :25 mm thick	sqm	30	0.2181%		
64	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	10	0.0777%		
65	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	10	0.0468%		
66	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete.	cum	10	0.3645%		
67	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth. Granite Stone of approved shade	sqm	2	0.0356%		
68	Providing and injecting approved grout in proportion recommended by the manufacturer into racks/honey-comb area of concrete/masonry by suitable gun/pump at required pressure including cutting,of nipples after curing etc. complete as per directions of Engineer-in-Charge. Epoxy injection grout in concrete/RCC work of approved make	kg	20	0.0809%		

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69	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.	–	–	0.0000%		
69.a	90 mm dia (OD-90 mm & ID-76 mm nominal)	metre	30	0.0307%		
69.b	120 mm dia (OD-120 mm & ID-103 mm nominal)	metre	155	0.2229%		
69.c	160 mm dia (OD-160 mm & ID-135 mm nominal)	metre	10	0.0197%		
69.d	200 mm dia (OD-200 mm & ID-175 mm nominal)	metre	10	0.0261%		
70	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal/ coke and salt) as required.	set	4	0.0715%		
71	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	each	14	0.3228%		
72	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :	–	–	0.0000%		
72.a	15 mm dia nominal bore	metre	20	0.0359%		
72.b	20 mm dia nominal bore	metre	20	0.0397%		
73	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work	–	–	0.0000%		
73.a	20 mm dia nominal bore	metre	20	0.0234%		
73.b	25 mm dia nominal bore	metre	20	0.0259%		
73.c	50 mm dia nominal bore	metre	20	0.0430%		
74	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall	–	–	0.0000%		
74.a	20 mm dia nominal bore	metre	20	0.0281%		
74.b	25 mm dia nominal bore	metre	20	0.0311%		
74.c	50 mm dia nominal bore	metre	20	0.0593%		
75	Providing and fixing brass bib cock of approved quality :	–	–	0.0000%		

Name of the Work: Civil, Structural & Architectural works for 1.0 MLD Sewage Treatment Plant at HPVP, BHEL Township, Vizag.
Tender Ref No.T0ATX00012, dated:08.02.2020

Item No.	Item Description	Unit	Qty	Weightage (in %)	Unit Rate	Total Amount
75.a	15 mm nominal bore	each	5	0.0082%		
75.b	20 mm nominal bore	each	5	0.0088%		
76	Providing and fixing soil, waste and vent pipes 100mm dia Centrifugally cast iron socketed pipe as per IS 3989	metre	68	0.3935%		
77	Providing and fixing M.s. holder bat clamps of approved desing to sand cast iron/cst iron pipe embedded in and including cement concre blocks 10x10x10cm of 1:2:4 mix including cost of cutting holes and making goods the walls etc.: For 100 mm dia Pipe	Each	5	0.0053%		
78	Providing and fixing bend of required degree with access door, insertion rubber washer 3mm thick, bolts and bnuts complete: 100mm Sand cast iron S&S as per IS 3989	each	10	0.0242%		
79	Providing and fixing plain bend of required degree 100mm: Sand cast iron S&S as per IS : 3989	each	10	0.0210%		
80	providing and fixing heel rest sanitary bend 100 mm dia: sand cast iron S&S as per is -1729	each	10	0.0199%		
81	Providing and fixing single unequal plain junction of required degree: 100x 100x 75 mm: sand cast iron S&S as per IS 1729	each	5	0.0143%		
82	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete. 100x100x100mm Sand cast iron S&S as per IS 3989	each	10	0.0391%		
83	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :	—	—	0.0000%		
83.a	Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	50	0.0798%		
83.b	Serrated with central bulb (230 mm wide, 8-11 mm thick)	metre	50	0.0798%		
84	Providing & Laying Double Flanged (PN10 Screwed) Centrifugally Spun Ductile Iron Pipes Of Class K-9 Conforming To IS-8329 80mm dia Ductile iron double flanged	meter	100	0.7784%		
85	Providing & Laying Double Flanged (PN10 Screwed) Centrifugally Spun Ductile Iron Pipes Of Class K-9 Conforming To IS-8329 100mm dia Ductile iron double flanged	meter	50	0.4324%		
86	Providing & Laying Double Flanged (PN10 Screwed) Centrifugally Spun Ductile Iron Pipes Of Class K-9 Conforming To IS-8329 150mm dia Ductile iron double flanged	meter	50	0.6490%		
87	Providing & Laying Socket & Spigot End Centrifugally Spun Ductile Iron Pipes 80 mm dia Of Class K-9 Conforming To IS-8329	meter	200	1.0838%		

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Item No.	Item Description	Unit	Qty	Weightage (in %)	Unit Rate	Total Amount
88	Providing Push-on-Joint to Centrifugally Spun Ductile Iron Pipes 80 mm dia class K-9 including cutting, testing of joints and the cost of rubber gasket	Joint	200	0.0736%		
89	Providing & Laying Socket & Spigot End Centrifugally Spun Ductile Iron Pipes 100mm dia Of Class K-9 Conforming To IS-8329	meter	75	0.4516%		
90	Providing Push-on-Joint to Centrifugally Spun Ductile Iron Pipes 100 mm dia class K-9 including cutting, testing of joints and the cost of rubber gasket	Joint	75	0.0307%		
91	Providing & Laying Socket & Spigot End Centrifugally Spun Ductile Iron Pipes 150mm dia Of Class K-9 Conforming To IS-8329	meter	75	0.6773%		
92	Providing Push-on-Joint to Centrifugally Spun Ductile Iron Pipes 150 mm dia class K-9 including cutting, testing of joints and the cost of rubber gasket	Joint	75	0.0482%		
93	Supply and installation of ductile iron Pipe fittings of size 3", 4" and 6" Class K-12 confirming to IS - 9523, Ductile iron puddle flanges, Pipe puddles,Ductile iron Pipe saddles for 3", 4" and 6" pipes.	Lot	1	2.1125%		
94	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.	—	—	0.0000%		
94.a	25 mm nominal outer dia Pipes	metre	600	0.8145%		
94.b	50 mm nominal outer dia Pipes	metre	100	0.3444%		
94.c	Supply and installation of miscellaneous pipes,fittings, clamps and accessories for item no 94.a and 94.b	Lot	1	0.2318%		
95	Supply of structural steel material including ISA angles, ISMC channels, ISMB beams and IS2062 GRE250(FE410W) plates	MT	4	0.9881%		
96	Providing & fixing of Anchor fastners,adhesive,chemical bolts : HST M10	nos	80	0.0653%		
97	Providing & fixing of Anchor fastners,adhesive,chemical bolts : HST M12	nos	80	0.1118%		
98	Providing & fixing of Anchor fastners,adhesive,chemical bolts : HST M16	nos	80	0.1397%		
99	U-BOLTS, CLAMPS,METALLIC STRAPS for Pipe sizes up to 200 NB	Lot	1	0.3169%		
100	Providing ,Laying ,Jointing & field testing of High Density Polyethelene Pipes (HDPE) confirming to IS 4984/14151/12786/13488 Wiith necessary jointing material like mechanical connector tec for sizes of 3" pipes. (Design pressure:10 Kg/Sq.cm) .	metre	300	0.6663%		
101	Providing ,Laying ,Jointing & field testing of High Density Polyethelene Pipes (HDPE) confirming to IS 4984/14151/12786/13488 Wiith necessary jointing material like mechanical connector tec for sizes of 4" pipes. (Design pressure:10 Kg/Sq.cm) .	metre	100	0.3256%		

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Item No.	Item Description	Unit	Qty	Weightage (in %)	Unit Rate	Total Amount
102	Providing ,Laying ,Jointing & field testing of High Density Polyethelene Pipes (HDPE) confirming to IS 4984/14151/12786/13488 Wiith necessary jointing material like mechanical connector tec for sizes of 6" pipes. (Design pressure:10 Kg/Sq.cm) .	metre	100	0.6799%		
103	Supply and installation of HDPE PIPE FITTINGS suitable for Design pressure:10 Kg/Sq.cm & SUPPORT CLAMPS for item no 100, 101, 102.	Lot	1	0.5015%		
104	Supply and installation of UPVC Pipes, Fitting, and supports clamps for Sizes 1", 2" and below 1"	Lot	1	0.5795%		
105	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & diameters for - 304 Grade	Kg	1000	2.0783%		
106	Supply and installation of hose pipes (Sizes 1" to 6") including pipe fittings, clamps, u-bolts, anchor bolts etc., required for completion of erection, equipment nozzle hook up and commissioning of piping	Lot	1	0.4225%		
	Total Wightage			100.0000%		
	Total amount in figures, Rs. =					
	Total amount in words, Rs. =					
Note						
1	Bidders should quote only the Total Amount both in figures & words in the specified place. They should not fill/quote/write anything in col. (F) & (G) . These rates & amount will be derived from the Total amount quoted and weightage (%) factor assigned against respective items indicated in col. E.					
2	Evaluation Shall be based on total amount quoted by bidder.					
3	The rate and amount are inclusive of all applicable taxes, except for the GST. For details of taxes, clause no. 8.0 of the TCC will be applicable.					