

NAME OF PROJECT			PLUMBING ESTIMATE FOR PROPOSED COMMERCIAL CUM RESIDENCE AT UJJAIN					
SANITARY INSTALLATIONS								
S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
1	MP SOR/Vol-II (2024)	17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or Strap, UPVC P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures completeincluding cutting and making good thewalls and floors wherever required :					
		17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.		Each	6	2995	17970
2	MP SOR/Vol-II (2024)	25.3	Providing and fixing white vitreous chinaEuropean Wall hung Anti germ Fluoro-PolymerCoated water closet of approved shape with soft closing seat cover, and 7.2 litre Low level slim dual flushing, PP (Poly Propylene) made 80 mm thick concealed flushing cistern, flushing capacity 3 litre/6 litre, with all fittings and fixtures complete including cutting and making good the wall and floors wherever required.					
		25.3.1	Anti germ Fluoro-Polymer Coated (Nano coating) Wall hung water closet Size 350 X 360 X 545mm with solid poly propelyne made soft closing seat cover (Premium Range)		Each	286	26412	7553832
3	MP SOR/Vol-II (2024)	25.45	Providing and fixing in position best Indian Auto Closing 32mm, Flush valve (for W. C. European and Wall Hung Type)concealed type (withDECOL technology/cartridge). (Premium Range)		Each	6	3833	22998

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4	MP SOR/Vol-II (2024)	25.10	Providing and fixing white vitreous china type Anti germ Fluoro-Polymer Coated Wash Basin with 15 mm Table mounted single lever Tall boy basin mixture, (cartridge size 32 mm) 15mm quarter turn angular stop cock, 32 mm C. P. brass made waste coupling length 130mm and 32 mm C. P. Brass Made Bottle Trap size 200x300mm fittings and fixtures complete including Painting offittings and cutting and making good the wall and floors wherever required.					
		25.10.1	White Vetrious China Anti germ Fluoro-Polymer Coated Wash Basin Size 190x600x435mm with Table mounted single lever Tall boy basin mixture, (cartridge size 32mm.) (Premium Range)		each	292	18585	5426820
5	MP SOR/Vol-II (2024)	25.46	Providing and fixing in position best Indian Sensotronic Sensor Faucet for Wash Basin use only. (Premium Range)		Each	6	9734	58404
6	MP SOR/Vol-II (2024)	25.12	Providing and fixing white vitreous china Flat Back Anti germ Fluoro-Polymer Coated urinal (Inbuilt spreaders, Inbuilt Bottle trap and inbuilt ceramic Waste coupling) with sensotronic concealed type flushing valve battery &electrical oprated type (9V transformer) for urinal completeset with installation box with control cockcomplete including painting of fittings and brackets, cutting and making good the wall and floors wherever required .					
		25.12.1	White Vetrious China Anti germ Fluoro-Polymer Coated Urinal Size 340x325x650 mm with sensotronic concealed type flushing valve battery & electrical oprated type (9V transformer) for urinal complete set with installation box with control cock. (Premium Range)		Each	6	23927	143562
		25.12.2	White Vetrious China Anti germ Fluoro-Polymer Coated Urinal size 385x325x635 mm with concealed sensotronic flushing valve for urinal complete set with installation box, (Premium Range)		Each	4	20025	80100

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7	MP SOR/Vol-II (2024)	17..14	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :					
		17.14.1	Kitchen sink with drain board					
		17.14.1.3	510x1040 mm bowl depth 200mm.		Each	77	7493	576961
		17.14.2	Kitchen sink without drain board					
		17.14.2.1	610x510 mm bowl depth 200 mm.		Each	2	4583	9166
8	MP SOR/Vol-II (2024)	17.64	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.					
		17.64.1	Semi rigid pipe					
		17.64.1.2	40mm dia		Each	300	98	29400
		17.64.2	Flexible pipe (only in residential & complaxes)					
		17.64.2.2	40mm dia		Each	5	98	490
9	MP SOR/Vol-II (2024)	17.68	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shape with 6 mm thick hard board backing.					
		17.68.1	Circular shape 450mm dia.		Each	292	806	235352
		17.68.2	Rectangular shape 453x357mm		Each	12	642	7704
10	MP SOR/Vol-II (2024)	17.71	Providing and fixing CP brass waste coupling of approved quality and make for sink and wash basin.					
		17.71.1	Waste coupling 31mm of 79mm length and 62mm breadth		Each	10	330	3300
11	MP SOR/Vol-II (2024)	17.72	Providing and fixing CP brass bottle trap of approved quality and make for sink and wash basin.		Each	10	853	8530
12	MP SOR/Vol-II (2024)	17.73	Providing and fixing CP brass towel rail of approved quality and make					
		17.73.1	600x20mm		Each	150	952	142800
		17.73.2	450x20mm		Each	4	836	3344
13	MP SOR/Vol-II (2024)	17.74	Providing and fixing CP brass towel ring of approved quality and make 200mm dia ring		Each	203	679	137837

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
14	MP SOR/Vol-II (2024)	17.75	Providing and fixing CP brass soap dish of approved quality and make		Each	203	422	85666
15	MP SOR/Vol-II (2024)	17.78	Providing and fixing C.P. brass grating of approved quality and make conforming to IS: specification.					
		17.78.1	100 mm dia.		Each	950	74	70300
16	MP SOR/Vol-II (2024)	17.95	Providing and fixing coupler for PVC pipes & fittings waste/rain water/drainage disposal of superior Indian make (as approved by Engineer incharge) i/c jointing with rubber rings, adhesive, lubricant,solvent cement PVC clips or burried underground i/c making necessary chases and holes in walls, floors or trenching complete with making good or i/c excavation and refilling as per site requirement with testing etc.complete. FOR WASH BASIN CONNECTION (40mm diameter)		Each	450	25	11250
17	MP SOR/Vol-II (2024)	17.96	Providing and fixing PVC pipes fittings waste/rain water/drainage disposal of superior Indian make (as approved by Engineer incharge) i/c jointing with rubber rings, adhesive, lubricant,solvent cement PVC clips or burried underground i/c making necessary chases and holes in walls, floors or trenching complete with making good or i/c excavation and refilling as per site requirement with testing etc. complete. FOR WASH BASIN CONNECTION (40mm diameter)		Each	450	62	27900
18	MP SOR/Vol-II (2024)	17.97	Providing and fixing 90 degree bend PVC pipes & fittings waste/rain water/drainage disposal of superior Indian make (as approved by Engineer incharge) i/c jointing with rubber rings, adhesive, lubricant,solvent cement PVC clips or burried underground i/c making necessary chases and holes in walls, floors or trenching complete with making good or i/c excavation and refilling as per site requirement with testing etc.complete. FOR WASH BASIN CONNECTION (40mm diameter)		Each	450	22	9900

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
19	MP SOR/Vol-II (2024)	17.98	Providing and fixing 45 degree bend PVC pipes & fittings waste/rain water/drainage disposal of superior Indian make (as approved by Engineer incharge) i/c jointing with rubber rings, adhesive, lubricant,solvent cement PVC clips or burried underground i/c making necessary chases and holes in walls, floors or trenching complete with making good or i/c excavation and refilling as per site requirement with testing etc.complete. FOR WASH BASIN CONNECTION (40mm diameter)		Each	450	30	13500
20	MP SOR/Vol-II (2024)	25.19	Providing and fixing in position best Indian (bonut size 24mm, ceramic disc size 19mm andmin. Body thickness 2mm, nickel plating 0.10 micron and chrome plating 0.3 micron, quarter turn)Bib cock. (Premium Range)		Each	240	2071	497040
21	MP SOR/Vol-II (2024)	25.27	Providing and fixing in position best Indian single Lever Auto Mixing Diverter (Cartridge Size 47mm, nickel plating 0.10 micron and chrome plating 0.3 micron) for Shower area use only. (Premium Range)		Each	203	7039	1428917
22	MP SOR/Vol-II (2024)	25.28	Providing and fixing in position best Indian C. P. brass made Spout (nickel plating 0.10 micron and chrome plating 0.3 micron). (Premium Range)		Each	203	2199	446397
23	MP SOR/Vol-II (2024)	25.29	Providing and fixing in position best Indian C. P. brass made Shower Arm Length 300mm (nickel plating 0.10 micron and chrome plating 0.3micron). (Premium Range)		Each	203	1038	210714
24	MP SOR/Vol-II (2024)	25.33	Providing and fixing in position best Indian shower rose 150mm dia, body and face chrome plated, brass made body, Silicon based Rubbittcleaning nozzles.(Premium Range)		Each	161	3825	615825
25	MP SOR/Vol-II (2024)	25.57	Providing and fixing in position best Indian C. P. Brass made (0.3 micron Chrome and 10 micron Nickel plated) Toilet Roll Holder. (PremiumRange)		Each	203	1354	274862

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
26	MP SOR/Vol-II (2024)	18.33	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gm, 15 mm nominal bore		Each	77	1272	97944
27	MP SOR/Vol-II (2024)	18.34	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS: 8931. 15 mm nominal bore.		Each	315	1155	363825
28	MP SOR/Vol-II (2024)	18.43	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :					
		18.43.1	100 mm diameter		Each	42	806	33852
29	MP SOR/Vol-II (2024)	25.36	Providing and fixing in position best Indian (bonut size 24mm, ceramic disc size 19mm and min. body thickness 2mm, nickel plating 0.10 micron and chrome plating 0.3 micron, quarter turn) 2- way Bib Cock .(Premium Range)		Each	286	2687	768482
30	MP SOR/Vol-II (2024)	25.37	Providing and fixing in position best Indian Health Faucet with 8mm dia 1.2 meter long Flexible Tube and wall bracket with N. R. V. (non-return wall). (Premium Range Sanitary Ware)		Each	286	1818	519948
31	MP SOR/Vol-II (2024)	25.79	Providing and fixing in position best Indian, 692mm long, satin finish C. P. Brass grab bar made of 304 grade ss i/c all nuts and screw (0.3 micron chrome and 10 micron nickel plated). (Premium Range)		Each	2	7413.0	14826
32	MP SOR/Vol-II (2024)	25.80	Providing and fixing in position best Indian, satin finish, C. P. Brass grab bar with left/right 90 degree angle, made of 304 grade ss i/c all nuts and screws. (0.3 micron chrome and 10 micron nickel plated). (Premium Range)		Each	2	9504.0	19008
33	MP SOR/Vol-II (2024)	25.59	Providing and fixing in position best Indian C. P. Brass made (0.3 micron Chrome and 10 micron Nickel plated) Double coat Hook. (PremiumRange)		Each	292	1005	293460
							Total	20262186

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WATER SUPPLY INTERNAL & EXTERNAL								
34	MP SOR/Vol-II (2024)	18.6	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings					
			i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge.					
		18.6.1	Internal work - Exposed on wall					
		18.6.1.2	20 mm nominal outer dia .Pipes.		metre	230	153	35190
		18.6.1.3	25 mm nominal outer dia .Pipes.		metre	560	177	99120
		18.6.1.4	32 mm nominal outer dia .Pipes.		metre	430	254	109220
		18.6.1.5	40 mm nominal outer dia .Pipes.		metre	800	354	283200
		18.6.1.6	50 mm nominal outer dia .Pipes.		metre	300	528	158400
		18.6.2	Concealed work including cutting chases and making good the walls etc.					
		18.6.2.1	15 mm nominal outer dia .Pipes.		metre	2100	207	434700
		18.6.2.2	20 mm nominal outer dia .Pipes.		metre	1200	234	280800
		18.6.2.3	25 mm nominal outer dia .Pipes.		metre	450	288	129600
		18.6.2.4	32 mm nominal outer dia .Pipes.		metre	350	360	126000
35	MP SOR/Vol-II (2024)	18.7	Providing and fixing Chlorinated Polyvinyl having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings. This included jointing of pipes and fittings with one step CPVC solvent cement, trenching, refilling and testing of joints complete as per direction of Engineer-in- Charge. Chloride External Work					
		18.7.4	32 mm nominal outer dia .Pipes.		metre	50	238	11900
		18.7.5	40 mm nominal outer dia.Pipes.		metre	20	324	6480
		18.7.6	50 mm nominal outer dia .Pipes.		metre	10	498	4980
		18.7.7	62.5 mm nominal outer dia .Pipes.		metre	820	1429	1171780
		18.7.8	75 mm nominal outer dia .Pipes.		metre	400	2018	807200
		18.7.9	100 mm nominal outer dia .Pipes.		metre	60	2791	167460

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
36	MP SOR/Vol-II (2024)	18.12	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
		18.12.1	With C.I. wheel of approved quality (screwed end)					
		18.12.1.5	65 mm nominal bore		each	18	1339	24102
		18.12.1.6	80 mm nominal bore		each	5	2302	11510
		18.12.2	With brass lever handle of approved quality.					
		18.12.2.1	25 mm nominal bore		each	190	341	64790
		18.12.2.2	32 mm nominal bore.		each	86	419	36034
		18.12.2.3	40 mm nominal bore		each	40	491	19640
		18.12.2.4	50 mm nominal bore		each	10	639	6390
37	MP SOR/Vol-II (2024)	18.15	Providing and fixing gun metal non- return valve of approved quality					
		18.15.1	25 mm nominal bore					
		18.15.1.1	Horizontal		Each	1	462	462
		18.15.1.2	Vertical		Each	1	474	474
		18.15.2	32 mm nominal bore					0
		18.15.2.1	Horizontal		Each	1	587	587
		18.15.2.2	Vertical		Each	1	715	715
		18.15.3	40 mm nominal bore					0
		18.15.3.1	Horizontal		Each	1	746	746
		18.15.3.2	Vertical		Each	3	990	2970
		18.15.4	50 mm nominal bore					0
		18.15.4.1	Horizontal		Each	1	1138	1138
		18.15.4.2	Vertical		Each	2	1353	2706
		18.15.5	65 mm nominal bore					0
		18.15.5.1	Horizontal		Each	1	2012	2012
		18.15.5.2	Vertical		Each	10	2360	23600
		18.15.6	80 mm nominal bore					0
		18.15.6.1	Horizontal		Each	1	2886	2886
		18.15.6.2	Vertical		Each	1	3699	3699
38	MPSOR/EM (2024)	55.5	Supply, installation, testing and commissioning of gun metal gate valve with brass lever handle ISI inclusive of all necessary required material, labor for mentioned below size.					
		55.5.1	15 mm nominal bore		Each	5	1102	5510
		55.5.2	20 mm nominal bore		Each	150	1308	196200

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
39	MP SOR/Vol-II (2024)	26.9	Providing, installation, testing and commissioning stainless steel strainer fabricated out of 1.6 mm thick stainless steel sheet with 3 mm dia holes with stainless steel flange.					
		26.9.1	80 mm dia		Each	2	4570	9140
40	MP SOR/Vol-II (2024)	18.17	Providing and fixing uplasticised PVC connection pipe with brass unions :					
		18.17.1	30 cm length					
		18.17.1.1	15 mm nominal bore		Each	100	88	8800
		18.17.2	45 cm length					
		18.17.2.1	15 mm nominal bore		Each	100	149	14900
41	MP SOR/Vol-II (2024)	18.54	Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) :					
		18.54.1	80 mm dia nominal bore		Each	2	3548	7096
42	MP SOR/Vol-II (2024)	18.55	Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS : 2373 :					
		18.55.1	80 mm dia nominal bore		Each	2	4186	8372
43	MP SOR/Vol-II (2024)	18.57	Cutting holes upto 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4(1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) including finishing complete so as to make it leak proof.		Each	250	129	32250
44	UADD SOR (Vol_I - 2021)	19.17	Dirt Box with S.S. Strainer as per specifications					
		19.17.1	50 mm dia		Each	4	3456	13824
		19.17.2	65 mm dia		Each	8	3826	30608
45	UADD SOR (Vol_I - 2021)	6.4	Providing and fixing full way gate valves tested to 21.00 kg/sq.cm.					
		6.4.9	100 mm dia		Each	1	6134	6134
46	UADD SOR (Vol_I - 2021)	6.7	Providing and fixing gun metal/ brass check (non-return) valves Class-II, female ends, tested to 21.09 kg/sq.cm.					

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		6.7.9	100 mm dia		Each	1	2752	2752
Total								4366077

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INTERNAL DRAINAGE AND STORM WATER								
47	MP SOR/Vol-II (2024)	17.58	Providing and fixing unplasticised Rigid PVC soil and waste pipes conforming to IS: 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes for working pressure of 4 kg/sqcm. (minimum wall thickness 3.2mm)					
		17.58.1	75mm diameter		Meter	600	136	81600
		17.58.2	110mm diameter		Meter	800	238	190400
48	MP SOR/Vol-II (2024)	17.61	Providing and fixing UPVC trap of self cleaning design complete. Including cost of cutting and making good the wall and floors. 100 mm inlet and 75 mm outlet		Each	950	517	491150
49	MP SOR/Vol-II (2024)	17.59	Providing and fixing unplasticised PVC moulded fittings / accessories for unplasticised Rigid PVC soil and waste pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.					
		17.59.1	Coupler					
		17.59.1.1	75 mm		each	450	117	52650
		17.59.1.2	110 mm		each	600	154	92400
		17.59.2	Single pushfit Coupler					
		17.59.2.1	75 mm		each	300	140	42000
		17.59.2.2	110 mm		each	300	195	58500
		17.59.3	Single tee with door					
		17.59.3.1	75x75x75 mm		each	300	219	65700
		17.59.3.2	110x110x110 mm		each	300	346	103800
		17.59.4	Single tee without door					
		17.59.4.1	75x75x75 mm		each	250	201	50250
		17.59.4.2	110x110x110 mm		each	250	266	66500
		17.59.5	Bend 87.50					
		17.59.5.1	75 mm bend		each	450	117	52650
		17.59.5.2	110 mm bend		each	300	172	51600

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50	MP SOR/Vol-II (2024)	17.60	Providing and fixing Unplasticised - PVC pipe clips of approved design to Unplasticised - PVC soil and waste pipes by means of bombay nail of required length including and making good the wall etc. complete.					
		17.60.1	75 mm		each	450	33	14850
		17.60.2	110 mm		each	600	50	30000
51	MP SOR/Vol-II (2024)	19.17	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :					
		19.17.1	With 20x20 mm square bar		each	100	226	22600
		19.17.2	With 20 mm diameter round bar		each	60	187	11220
52	MP SOR/Vol-II (2024)	19.18	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to withstand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.		each	200	266	53200
Total								1531070

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EXTERNAL DRAINAGE & STORM WATER								
52	MP SOR/Vol-II (2024)	19.7	Providing and fixing square-mouth S.W. gully trap class SP1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :					
		19.7.1	100 x 100 mm size P type.					
		19.7.1.1	With well burnt bricks		Each	25	1764	44100
		19.7.2	150 x 100 mm size P type.					
		19.7.2.1	With well burnt bricks		Each	2	1803	3606
53	UADD/ Vol-I (2021)	11.2	Providing, Laying & Jointing of DWC (double wall corrugated) PE Pipes of renowned duly tested inclusive of all cost of inspection charges, transpotation charges, transit insuranse, loading/ unloading and stacking at site/ store etc, complete.					
		11.2.4	150 mm/ 180 mm		Meter	110	320	35200
		11.2.6	200 mm / 238 mm		Meter	210	538	112980
		11.2.7	250 mm / 295 mm		Meter	260	882	229320
		11.2.8	300 mm / 345 mm		Meter	40	1260	50400
		11.2.9	400 mm / 480 mm		Meter	10	1753	17530
54	UADD/ Vol-I (2021)	11.3	Providing, Laying & Jointing fittings for structural wall polyethylene piping systems (pipe with online/offline coupler, bends and elasticmeric sealing ring) with nonsmooth external annular corrugated and smooth internal surfaces (double wall) for non-pressure underground sewerage, drainage.					
		11.3.1	Coupler					
		11.3.1.3	150 mm		Each	30	118	3540
		11.3.1.5	200 mm		Each	75	144	10800
		11.3.1.6	250 mm		Each	90	191	17190
		11.3.1.7	300 mm		Each	14	801	11214
		11.2.9	400 mm / 480 mm		Meter	4	1167	4668
		11.3.2	Bends					
		11.3.2.3	150 mm		Each	2	588	1176
		11.3.2.5	200 mm		Each	2	946	1892
		11.3.2.6	250 mm		Each	2	1852	3704

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		11.3.2.7	300 mm		Each	2	2919	5838
		11.3.2.8	400 mm		Each	1	4642	4642
		11.3.3	Sealing Ring					
		11.3.3.3	150 mm		Each	30	33	990
		11.3.3.5	200 mm		Each	75	79	5925
		11.3.3.6	250 mm		Each	90	165	14850
		11.3.3.7	300 mm		Each	14	417	5838
		11.3.3.8	400 mm		Each	4	645	2580
55	MPSOR/Vol-I (2024)	2.9	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : (No extra lift is payable if work is done by mechanical means) in all kinds of soil					
		2.9.1	Pipes, cables etc., not exceeding 80 mm dia.		Meter	100	96	9600
		2.9.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.		Meter	800	156	124800
		2.9.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm.		Meter	10	244	2440
56	MPSOR/Vol-II (2024)	19.9	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 sand) R.C.C. top slab with Cement Concrete 1:2:4mix(1cement:2 sand :4graded stone aggregate 20mm nominal size), foundation concrete1:4:8mix(1cement: 4 sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size) finished witha floatingcoat ofneat cement complete as per standard design :					

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
		19.9.1	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) :					
		19.9.1.1	With well burnt bricks		Each	70	7997	559790
57	MPSOR/Vol-II (2024)	19.35	Deduct for not provide C.I. manhole cover with frame					
		19.35.1	for item No. 19.9.1.1 & 19.9.1.2		Each	35	1975	-69125
			TO BE DEDUCTED FROM THE ESTIMATE					
58	MPSOR/Vol-II (2024)	19.37	Providing & Fixing of Precast RCC drain cover of size 750x600 x70mm (thickness) with 6 holes, manufactured by using M-30 grade of concrete reinforced with 8mm dia Tor Steel @100mm c/c both ways, manufactured by vibro compaction process using joint less FRP moulds, so at to achieve shuttering finish on five faces @top face will have broom finish etc complete.		Each	35	550	19250
			THIS PERFORATED COVER TO BE PLACED OVER THE ABOVE MENTIONED CHAMBER					
59	MPSOR/Vol-II (2024)	19.9.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight offrame 58 kg) :					
		19.9.2.1	With well burnt bricks		Each	7	18086	126602
60	MPSOR/Vol-II (2024)	19.9.3	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :					
		19.9.3.1	With well burnt bricks		Each	5	21816	109080
61	MPSOR/Vol-II (2024)	19.10	Extra for depth for manholes					
		19.10.1	Size 90x80 cm					
		19.10.1.1	With well burnt bricks		metre	60	6176	370560
		19.10.2	Size 120x90 cm					
		19.10.2.1	With well burnt bricks		metre	11	7380	81180

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
62	UADD/ Vol-I (2021)	17.18	Providing MS/CI foot rests and fixing in manhole with CC blocks of Cement concrete grade 1:2:4 (Nominal Mix) with stone aggregate 20 mm nominal size of size 30cm x 20cm x 15cm					
		17.18.1	With 20mm square bar/ casting one foot rest		Kg.	1050	90	94500
		17.18.2	With 20mm round bar foot rest		Kg.	300	100	30000
63	UADD/ Vol-2 (2021) APPROVED IN UDA	22.10	Providing and laying below ground unplasticised PVC pipe to with stand working pressure of 4 kg/cm ² solid waste pipes confirming to IS:13592 and IS:4985 including jointing with seal ring confirming to IS :5282 leaving 10mm gap for thermal expansion all necessary fittings etc. complete. Excavation to be paid seperately.					
		22.10.1	110 mm diameter OD		Meter	200	217	43400
64	MPSOR/Vol-II (2024)	19.27	Constructing brick masonry road gully chamber 50x45x60cm with bricks in cement mortar 1:4 (1 cement : 4 sand) including 500x450 mm precast R.C.C. horizontal grating with frame complete as per standard design :					
		19.27.1	With well burnt bricks		metre	10	3941	39410
65	MPSOR/Vol-II (2024)	19.28	Constructing brick masonry road gully chamber 45x45x77.5cm with bricks in cement mortar 1:4 (1 cement : 4 sand) with precast R.C.C. vertical grating complete as per standard design :					
		19.28.1	With well burnt bricks		metre	10	4910	49100
66	MPSOR/Vol-II (2024)	19.29	Constructing brick masonry road gully chamber 110x50x77.5cm with bricks in cement mortar 1:4 (1 cement : 4 sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :					
		19.29.1	With well burnt bricks		metre	10	6285	62850
67	MPSOR/Vol-II (2024)	19.36	Providing & Fixing of Precast RCC drain cover of size 600x 450 x70mm (thickness) with 4 holes, manufactured by using M- 30 grade of concrete reinforced with 8mm dia Tor Steel @100mm c/c both ways, manufactured by vibro compaction process using joint less FRP moulds, so at to achieve shuttering finish on five faces @top face will have broom finish etc complete.		Each	30	350	10500

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
68	MPSOR/Vol-II (2024)	19.37	Providing & Fixing of Precast RCC drain cover of size 750x600 x70mm (thickness) with 6 holes, manufactured by using M-30 grade of concrete reinforced with 8mm dia Tor Steel @100mm c/c both ways, manufactured by vibro compaction process using joint less FRP moulds, so at to achieve shuttering finish on five faces @top face will have broom finish etc complete.		Each	40	550	22000
69	MPSOR/Vol-II (2024)	19.38	Providing & Fixing of Precast RCC drain cover of size 900x450 x90mm (thickness) with 8 holes, manufactured by using M-30 grade of concrete reinforced with two layers of 8mm dia Tor Steel @100mm c/c both ways, manufactured by vibro compaction process using joint less FRP moulds, so at to achieve shuttering finish on five faces @ top face will have broom finish etc complete.		Each	40	900	36000
70	MP SOR/Vol-I	10.22	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.					
		10.22.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.		KG	4000	105	420000

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
71	UADD/ Vol-I (2021)	17.2	Constructing Brick masonry rectangular manhole in cement mortar 1:4 (1cement:4 fine sand) common Burnt Clay Brick or fly ash bricks, of compressive strength not less than 75 Kgf/ cm ² RCC top slab Cement Concrete 1:2:4 (Nominal Mix) with stone aggregate 20mm nominal size, 20 cm thick foundation in cement concrete 1:3:6 (Nominal Mix) with stone aggregate 40mm nominal size, inside & outside plastering minimum 12 mm thick with cement mortar 1:3 (1 cement:3 coarse sand) finished with a floating coat of neat cement and making channels in Cement Concrete 1:2:4 (Nominal Mix) with stone aggregate 20mm nominal size including finishing the channel to shape, including providing and fixing footrest, manhole cover and frame etc. complete. (only excavation as per actual shall be paid separately), Depth of manhole shall be considered as the vertical distance from top of the manhole cover to the outgoing invert of main drain channel. (for reference purpose use Drawing No. 11)					
		17.2.6	Man hole for property connection (House connection) in narrow lanes.					
		17.2.6.1	Man hole with above specifications having inside size 450x450mm and 900mm deep including SFRC square Man hole Cover and frame (medium Duty) 450mmx 450mm complete.		Each	10	5813	58130
		17.2.6.2	Man hole with above specifications having inside size 600x450mm and 900mm deep including SFRC rectangular Man hole Cover and frame (medium Duty) 600mm x 450mm complete.		Each	10	5854	58540
Total								2846590.00

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
WATER TREATMENT & PUMPS								
72	MPSOR/EM (2024)	39.10	Supplying & installation of approved make required capacity 3 phase, 50 Hz, 415V, open well submersible pump, with control panel starter with dry run protection, single phase preventer, connections, etc. as required as per specifications but excluding pipe and connection cable.(LOCATION- STP for irrigation)					
		39.10.2	5.0 HP head metre 12-28, discharge LPM 1200-390		Each	1	47724	47724
73	MPSOR/EM (2024)	39.3	Supplying and laying of submersible flat cable ISI marked 3 core copper wire of suitable size with proper clamping of approved make.					
		39.3.1	2.5 sq.mm multi strand		Meter	90	200	18000
		39.3.2	4.0 sq.mm multi strand		Meter	175	205	35875
		39.3.3	6.0 sq.mm multi strand		Meter	150	308	46200
		39.3.4	10.0 sq.mm multi strand		Meter	140	471	65940
74	MPSOR/Vol-II (2024)	19.18	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to withstand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.		Each	110	266	29260
75	UADD SOR (Vol_I -2021)	6.24	Providing and fixing 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) :					
		6.24.1	50 mm diameter		Each	10	2462	24620

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
76	MPSOR/EM (2024)	39.22	Supplying & installation of pressure gauges with 15 mm dia brass check nut & capable of showing pressure reading from 0. to 30 kg.		Each	18	2500	45000
77	UADD SOR (Vol_I-2021)	16.13	Providing, erecting C.I. foot valve having single leather flap and gunmetal seating. Valve shall be fixed on suction side of pump as per requirement including jointing material and hardware.					
			Flanged Type					
		16.13.2	65 mm		Each	2	647	1294
78	MPSOR/EM (2024)	25.13	Supply of ISI Marked Automatic Star-Delta Starters confirming to IS : 13947-4 with suitable over load relay range and contactor size & timer 415 V , 3 -Phase with two earthing terminals					
		25.13.1	3 to 12.5 HP		Each	6	8150	48900
79	MPSOR/EM (2024)	52.16	Water level control relay – reliable solution for tank water level control					
80		52.16.1	Supply, installation, testing and commissioning of 230V AC operated water level control relay should be able to connect three level sensors to detect the water level in		Each	4	31945	127780
81	MPSOR/EM (2024)	22.1	Wiring for sub-mains with PVC insulated cable FRLS with copper multi strand conductor ISI marked in surface rigid PVC conduit (MMS) FRLS ISI marked of suitable size (conduit included) including 2mm thick accessories, connection etc, as required as per specification. (Refer General Notes for Classification of Conduit Wiring Point No.11)					
		22.1.1	2 Wire sub main					
		22.1.1.1	2.5 sq. mm. cable		Meter	900	136	122400
Total								612993.00

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
RAIN WATER HARVESTING & TUBE WELLS								
82	MPSOR/ Vol-II	16.1	Boring/drilling bore well of required dia perfectly vertical to receive casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire and running charges of all equipments, tools, plants and machineries required for the job, all complete as per direction of Engineer-in-Charge, upto 90 metre depth below ground level.					
		16.1.1	All types of soil upto 90 metre depth.					
		16.1.1.3	200 mm nominal size dia.	2	Meter	45	451	40590
		16.1.2	Rocky strata including Boulders.Upto 90 metre depth.					
		16.1.2.3	200 mm nominal size dia.	2	Meter	45	690	31050
		16.1.3	All types of soil upto 90 metre depth.					
		16.1.3.3	200 mm nominal size dia.	2	Meter	45	495	44550
		16.1.4	Rocky strata including Boulders.Upto 90 metre depth.					
		16.1.4.2	150 mm nominal size dia.	2	Meter	45	656	29520
83	MPSOR/ Vol-II (2024)	16.2	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings and accessories etc. all complete, for all depths, as per direction of Engineer-in-Charge.					
		16.2.3	200 mm nominal dia(minimum wall thickness 10mm).		Meter	20	559	11180
84	UADD/ Vol-2 (2021) APPROVED IN UDA	20.5	Providing PVC pipe slotted as per direction of Engineer-in-Charge and fixing in Rain water recharge pit/Percolation pit or Soakway with jute coir wrapping pipe.					
		20.5.1	150 mm nominal size dia.		Meter	5	316	1580

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
85	MPSOR/ Vol-II (2024)	16.6	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading and sizes as per actual requirement, all complete as per direction of Engineer-in-charge.		Cum	20	947	18940
86	MPSOR/ Vol-II (2024)	16.7	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level and draw down etc. by step draw down method, collecting water samples and getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire and labour charges of air compressor, tools and accessories etc., all as per requirement and direction of Engineer-in-Charge.		hour	18	478	8604
87	MPSOR/ Vol-II (2024)	16.8	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:					
		16.8.3	200 mm dia		Each	2	488	976
88	MPSOR/ Vol-II (2024)	16.9	Providing and fixing M.S. clamp of required dia made of 100 x10 mm flat to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts and nuts of required size complete.					
		16.9.3	200 mm dia		Each	60	1281	76860
89	UADD/ Vol-2 (2021) APPROVED IN UDA	20.6	Providing and laying filter material as given below in recharge pit/ percolation pit or soak pit/ waste water treatment system.					
		20.6.1	Course Sand (1.5 mm to 2.00 mm)		Cum	5	1585	7925
		20.6.2	Gravel/Pebbles (5 to 25 mm)		Cum	5	1331	6655

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
90	UADD/ Vol-2 (2021) APPROVED IN UDA	20.7	Brick batsCum		Cum	5	948	4740
91	MPSOR/ Vol-II (2024)	16.1	Boring/drilling bore well of required dia perfectly vertical to receive casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire and running charges of all equipments, tools, plants and machineries required for the job, all complete as per direction of Engineer-in-Charge, upto 90 metre depth below ground level.					
		16.1.1	All types of soil upto 90 metre depth.					
		16.1.1.3	200 mm nominal size dia.		Meter	40	451	18040
		16.1.3	All types of soil beyond 90 metre depth.					
		16.1.3.2	150 mm nominal size dia.		Meter	400	428	171200
92	MPSOR/ Vol-II (2024)	16.2	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings and accessories etc. all complete, for all depths, as per direction of Engineer-in-Charge.					
		16.2.3	200 mm nominal dia(minimum wall thickness 10mm).		Meter	40	559	22360
93	MPSOR/ EM (2024)	39.2	Supplying & installation of required capacity of three phase, 50 Hz,415V, deep well submersible pump steel body, as per IS of approved make, suitable upto 6 " tube well with control panel starter suitable for submersible pump with dry run protection, single phase preventer, connections, including clamp, bore cap etc. as required as per specifications but excluding pipe and connection cable.					
		39.2.11	10 HP with 16 stages, head metre 147-64, discharge LPM 60-270		Each	2	91240	182480

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
94	MPSOR/ EM (2024)	39.5	Supplying and laying of approved make nylon rope 12 mm thick complete with binding for support of pump and motor.		Metre	420	76	31920
Total								709170

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
	STP PLANT							
			Designing and preparing good for construction civil, mechanical and electrical shop drawings of conventional/package unit of a Sewage Treatment Plant(STP)/ Effluent Treatment Plant (ETP) as per manufacturer/vender's design and specification consisting of treatment units complete for meeting up to date/ target parameters of treated effluent conforming to Madhya Pradesh Pollution Control Board (MPPCB), MoEF GOI guidelines, National Green Tribunal guideline 30.4.2019 and technical specifications codes of practices as published by the Bureau of Indian Standard (BIS) and latest version of "Manual on Sewerage and Sewage Treatment" published by the Central Public Health And Environmental Engineering Organization (CPHEEO). The work shall include supplying, installing, testing and commissioning of electro-mechanical equipments, instruments, pipes, valves, pumps, and gauges etc.					

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
95	MPSOR/ Vol-II (2024)	30.1	as per approved technical specifications, layout and drawing of STP/ETP. Most of the electro-mechanical unit will be placed below ground under road/greenarea/as per site condition, space available, equipment and pump room will be above the ground level and civil work RCC (M25) according to the approved shop drawings and direction of Engineer in charge. Civil work shall be paid separately. Rates are inclusive of cost of operation and maintenance (O&M) for one year after completion of works which include periodical /monthly checking quality of treated sewage, checking of safety arrangements and routine maintenance of plant such as oiling, greasing, cleaning, operating, providing Consumable replacement of components within guarantee period, disposal of dried sludge and also ensuring safety against theft. The STP/ETP shall comprise of the units of required size as per detail process and hydraulic design.					
			NOTE :- 1- If STP and ETP plant are situated in the same campus then only one O&M Contract shall be applicable. 2- Treated water effluent testing shall be got done by the vender from Pollution Control Board (PCB) approved laboratory only covering parameters such as - BOD, COD, TSS, PH, O&G, TKN, TP and E COLI etc. 3- Main power supply with earthing up to main control panel of STP/ETP shall be provided by the owner/department. The electrical panel which will be supplied by the vender will also include all the required NO/NC contacts and provision for BMS connectivity. 4- Detail specifications of components shall be as per manufacturerstipulation and preamble both.					

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
			5- Tanks shall be made of MSFRP (mild steel fiber reinforced polymer/plastic)/ HDPE (High Density Polyethylene)/FRP (Fiber reinforced plastic) anti corrosive in packaged unit.					
			Conventional MBR STP Technology Primary treatment – - Manual Bar Screen -Oil, Grease Trap and Grit Removal System Secondary treatment – -Raw Sewage Transfer Pump (01set) - Air Blower (02set) and Diffuser System - Agitator -MBR Module -Membrane Clean-in-place (CIP) system -Chlorine Dosing system with Chlorine Dosing Pump(01set)					
		30.1.3	.-Permeate Suction and Transfer Pump (01set) -Sump Pump (01set) -Plant/Interconnecting Piping And Valves -Manual/PLC Based Electrical Control Panel -Incoming/Outgoing Feeder -Cable Laying With Cable Tray -Earthing Systems -Pressure Gauges -Level Switches -Online Rota meter -Air Rota meter -Flow Meter Sludge Handling System – -Sludge Recycling Pump (01set) -Sludge Feed Screw Pump (01set) -Filter Press System					
		30.1.3.1	50 KLD		Each	1	27,37,457	2737457
Total								2737457

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
OTHER STATE SOR ITEMS								
96	GUJRAT Electro Mechanical 2022-23	18	RO SYSTEM					
		A	SS Skid mouted RO system as per IS: 10500 (latest) including iron removing filter, chloride & fluoride removal pump, raw water pump, sand filter activated carbon, dozing pump, micron filters, high pressure pump, low-high pressure switches, membrane housing, membrane, flow meters, pressure gauges, electrical panel box, inter connection CPVC pipes, inernal electrical wiring etc. of Capacity: 500 LPH.		Each	1	133358.57	133358.57
97	MH-SOR 2018-19 (3-3-5)		Supplying, erecting, testing and commissioning self contained water cooler 230/250 Volts 50 cycles nominal cooling capacity of 150 liters/hr and storage capacity150 liters with partially stainless steel body complete.specification no. AP-WCR/WC		Each	2	47656	95312
98	MH-SOR 2018-19 (12-4-28)		Supplying & erecting Float sensor switch for water level controller working on 250V & rated current 8A, with 2 mtr. wire & High quality of wire & plastic body.		Each	16	426	6816
99	GUJRAT Electro Mechanical 2022-23	12	End Suction (Back Pull Out) Pump					

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
		B	Supply, installation, testing & commissioning of End Suction Back Pull Out centrifugal pump motor set with base frame of specified duty parameters & guaranteed efficiency of following MOC with specified capacity horizontal foot mounted TEFC squirrel cage induction motor (with minimum IE-3 efficiency class), working on three phase AC supply with 50 Hz $\pm$ 3%, 415 V $\pm$ 10%, rated speed 1450 RPM along with fabricated MS base frame, coupling, coupling guard, foundation bolts etc. as per relevant IS. M.O.C.: Impeller & Wearing Rings: CF8M, Casing: Cast Steel WCB , Shaft: SS 410, Shaft Sleeve: SS 410, Mechanical Seal (above 30 kw), Base Frame: MS.					
			Rating					
		1	Upto 30.0 KW					
			4 KW		Each	2	49260	98520
			5 KW		Each	4	61575	246300
			6 KW		Each	4	73890	295560
Total of OTHER STATE RATE ITEMS								875867
MARKET RATE ITEMS								
1	MR1		Providing and fixing Y strainer fwith nuts, bolts, rubber insertions etc.					
			25 mm dia nominal bore		Each	4	2850	11400
			32 mm dia nominal bore		Each	4	3000	12000
			40 mm dia nominal bore		Each	4	3500	14000
2	MR2		Fixing fully automatic "No tough" hand dryer suitable to operate on 230 volts, single phase, 50 Hz AC power supply complete with brackets for fixing on wall including cutting and making good the walls wherever required.		each	2	10500	21000
3	MR3		Supply, fixing and jointing of heavy class GI puddle flange pipes epoxy coated, of minimum 400 mm long clear ends outside the RCC surface, and fixed in underground sumps, water tanks etc. complete, with end joints either screwed / flanged as required with endcaps / plugs complete as per the requirement of E-i-C					

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
			200 mm dia		Each	2	5500	11000
			150 mm dia		Each	1	5000	5000
			100 mm dia		Each	3	4500	13500
			80 mm dia		Each	28	4000	112000
			65 mm dia		Each	4	4000	16000
			50 mm dia		Each	4	3500	14000
			40 mm dia		Each	4	3500	14000
			32 mm dia		Each	10	3000	30000
4	MR4		Providing, fixing, jointing and testing heavy duty, polyethylene (PVC) SWR pipes, Class B- 6kg/cm² pressure, of Supreme, Prince or equivalent, open, low density, to wall, ceiling and floor, approved quality, complete, for rain water pipes including jointing with rubbering / solvent / solution and airtight joints, with necessary specials, couplers, elbow, equal tees, tail piece, adapter (both male and female), reducer (single stage, double stage and triple stage), end cap, fabricated bend, etc., and lubricant or jointing material, including testing, cutting, making good the wall, ceiling and floor etc. complete of the following nominal bore (NB) size: The rate shall include the cost of PVC cowl for vertical downtake pipes and necessary supports as required.					
			75 mm dia		Rmt.	900	450	405000
			100 mm dia		Rmt.	2800	600	1680000
5	MR5		Providing and fixing heavy duty, polyethylene (PVC) SWR pipes, Class B- 6kg/cm ² pressure, of Supreme, Prince or equivalent fittings/ accessories .					
			Coupler					
			75 mm		each	350	200	70000
			110 mm		each	450	250	112500
			Single pushfit Coupler					
			75 mm		each	150	200	30000
			110 mm		each	200	250	50000
			Single tee with door					
			75x75x75 mm		each	100	260	26000
			110x110x110 mm		each	270	410	110700
			Single tee without door					

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
			75x75x75 mm		each	50	250	12500
			110x110x110 mm		each	120	300	36000
			Bend 87.50					
			75 mm bend		each	200	250	50000
			110 mm bend		each	300	300	90000
			Reducer					
			100x75		each	200	350	70000
6	MR6		Providing and fixing Floor out plug for SWR CLASS B pipes, with suitable inlet key for opening, complete as required.					
			100 MM		each	10	350	3500
			75 MM		each	10	230	2300
7	MR7		Providing, fixing, jointing and testing heavy duty, Acoustic Multilayer low noise PVC- SWR pipes as per IS 13592 & fittings as per IS 14735, - Class B for soil ,waste & rain water drain including jointing with rubbering / solvent / solution and airtight joints, with necessary specials, couplers, elbow, equal tees, tail piece, adapter (both male and female), reducer (single stage, double stage and triple stage), end cap,Cowl, fabricated bend, etc., and lubricant or jointing material, including testing, cutting, making good the wall, ceiling and floor etc. complete of the following nominal bore (NB) size:					
			110mm		Rmt.	50	4200	210000
			160mm		Rmt.	260	5200	1352000
8	MR8		Providing and fixing heavy duty, Acoustic Multilayer low noise PVC- SWR pipes as per IS 13592 & fittings as per IS 14735, - Class B fittings/ accessories .					
			Coupler					
			110 mm		each	18	950	17100
			160 mm		each	85	1050	89250
			45 bend					
			110 mm		each	10	850	8500
			160 mm		each	10	1100	11000
			Clean out plug					
			110 mm		each	4	750	3000
			160 mm		each	4	1050	4200

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
9	MR9		Supply, installation, testing and commissioning of continuous duty submersible centrifugal non-clogging drainage pumps complete with 3 phase motor (EFF1) with all necessary protection and mechanical seal, lifting arrangement etc. complete with all ancillaries including float type level controllers, electrical control panels fabricatd from 14 gauge CRCA sheet volt meter ammeter with selector switch, TPMCB, 5 VA CL : CTs, phase indicating lamps protected by 2 amp SP MCB, DOL starter, necessary wiring, cable alleys, earthing, interlocking, starter with Automatic float type level controller, provision of high level alarm, sequence timer, potential free contact to starter for connection to BAS, both pumps may run simultaneously at pre determind level.					
			Flow rate : 22 cum/Hr. each (1W+1S=1Set)		Set	3	360000	1080000
			Head : 15 Mts					
			Solid Handling : 10-12 MM					
			Location : Basement Storm water, WTP Plant Room & STP Plant Room Drainage Sumps					
			Purpose : Sump Drainage					
10	MR10		Providing, fixing, testing & commissioning of vertical FRP filter with adequate dirt holding capacity. The filter shall be complete having PVC frontal piping with 50 mm multiport valve including all supporting structure with initial charge filter media. The filter shall be provided with set of internals for raw water inlet and bottom collecting system. Velocity in frontal piping and valves shall be 1.50 m/sec.					
			Filter for Domestic Water Services					
			Filtration Rate 20000L/Sqm/Hr					
			Working pressure 3.5 Kg/Sq.cm					
			Capacity : 10 m3/Hr.		Set	1	315000	315000
			Activated Carbon Filter					
			Filtration Rate 20000L/Sqm/Hr					
			Working pressure 3.5 Kg/Sq.cm					
			Capacity : 10 m3/Hr.		Set	1	385000	385000

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
11	MR11		Providing, fixing, testing & commissioning of FRP water softening plant (suitable for 3 Kg/Sqcm working pressure) complete with initial charge with T-40 NA/225 NA ION EXCHANGE Resin, multiport valve with built in ejector for controlling all operations), regeneration system and HDPE tank, pressure gauge at inlet, outlet and back wash (each with isolation cock), valves, fittings and water hardness testing kit & associated works. Velocity in frontal piping and valves shall be 1.50 m/sec. Softener shall be suitable for the following duty.					
			Raw water hardness 500 Mg/L					
			Treated water harness 100 Mg/L					
			Regeneration Period 4.0 Hrs.					
			Capacity : 10 m3/Hr.		Set	1	405000	405000
12	MR12		Supplying, installing, testing and commissioning of chlorine dosing system (for domestic water treatment plant) consisting of one HDPE tank of 100 litres capacity with a positive displacement diaphragm dosing pump having variable flowrate of 0-6 lph. The motor shall be suitable for operation at 240 V/Single phase/50 Hz. Supply. The pump shall be supplied complete with necessary polypropylene piping, valves, strainers, low level switch and injection fittings. The pump shall be speed & stroke control..		Set	1	30000	30000
13	MR13		Supply, installing, testing and commissioning of annunciation and indication panel with interlocking arrangement complete in accordance to specification with level controller (In Raw Water, Treated Water and Soft Water Tank : High / Low Level Controller) etc with control cabling from field to MCC as required. Provision to connect to the building Automation system or pump controller through a suitable port.		Lot	1	25000	25000

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
14	MR14		Providing, fixing, testing & commissioning pressure switch for water pumps to start/stop the pump at set pressure. Including wiring, cabling from pump to panel & all other accessories as required to operate the system automatically.		No.	2	9000	18000
15	MR15		Supply, installing, testing and commissioning of level controllers for water pumps to start/stop the pump at set level. Including wiring, cabling from pump to panel & all other accessories as required to operate the system automatically.		No.	5	8500	42500
16	MR16		Supply, installing, testing and commissioning in position Vane type mechanical water flow meter for following pipe size.					
			100 mm dia		No.	1	35000	35000
17	MR17		Supply, installation, testing and commissioning of Electric Panel as Per SLD & Technical Specification. The scope also includes Supply & Laying of Aluminium Armoured XLPE Cables for all Pumps as per mentioned size in SLD. For water treatment & transfer pumps)		Set	1	80000	80000
18	MR18		Supply, installation, testing and commissioning of Electric Panel as Per SLD & Technical Specification. The scope also includes Supply & Laying of Aluminium Armoured XLPE Cables for all Pumps as per mentioned size in SLD. FOR STP		Set	1	110000	110000
19	MR19		Supply, installation, testing and commissioning of Electric Panel as Per SLD & Technical Specification. The scope also includes Supply & Laying of Aluminium Armoured XLPE Cables for all Pumps as per mentioned size in SLD. FOR BASEMENT SUMP)		Set	1	70000	70000

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
20	MR20		Supply, installation , testing & commissioning of SS water tank for drinking water and kitchen storage , tank shall be provided with Inner layer SS316 + Outer Layer SS 304 of specified thickness, tank should be provided with inlet, outlet and vent/overflow connection, 75mm Puf Insulation , manhole cover 450mm dia, Inlet connection of water tank shall be of 25mm nominal bore, overflow/vent - 25mm nominal bore and outlet connection at bottom of tank of 40mm nominal bore. Cost of tank shall be inclusive of Angle stiffeners,stand leg, SS flanges connecting from water treatment facility and distribution system complete as per approved specifications. (contractor shall provide drawing to civil contractor for tank foundation) (Thickness of inner layer 0.8mm & outer layer .6mm)					
			1500 Liters tank capacity		Each	1	135000	135000

S. No.	SOR	Item No.	Description	NOS	Unit	Qty	Rate (in Rs.)	Amount
				Total of MARKET RATE ITEMS				7447950
Grand total Amount (SOR AMOUNT , OTHER STATE SOR & MARKET RATE ITEMS AMOUNT)					Total of SOR ITEMS			33065543.00
					Total of Other State Rate ITEMS			875866.570
					Total of Market Rate ITEMS			7447950.00
					GRAND TOTAL			41389359.57
					SAY			41390000
TOTAL COST (IN WORDS) - FOUR CRORE THIRTEEN LACS NINTY THOUSAND ONLY								

BUILDING WORK (VOLUME-I AND VOLUME-II)
In Force From January 01, 2024
Issued by :-
ENGINEER-IN-CHIEF
MP Public Works Department (P.I.U)
BHOPAL

BUILDING WORK (VOLUME-I AND VOLUME-II)
EFFECTIVE FROM - 2nd August 2021
Issued by :-
DIRECTORATE
URBAN ADMINISTRATION AND DEVELOPMENT
BHOPAL (m.p.)

Gujarat Water Supply and Sewerage Board
Jalseva Bhavan, Sector-10A, Gandhinagar
SCHEDULE OF RATES : ELECTRO - MECHANICAL
YEAR : 2022-23

SCHEDULE OF RATES
FOR THE YEAR - 2018-2019
Issued by :-
Chief Engineer
Maharashtra Jeevan Pradhikaran Region
Nagpur