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# MUNICIPAL CORPORATION BHILAI (C.G.)

## NIT

कार्य का नाम :- वार्ड-18 कोल डिपो के पास सार्वजनिक सुलभ शौचालय निर्माण कार्य।

PwD Building Sor 01.01.2015 & Electrical Sor

S.No.	Description and details of work	Qty.	Unit
1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits. In all types of soil	95.51	Cum
2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	104.00	Sqm
3	Extra for every additional lift of 1.5 m or part thereof. All types of soils	16.29	Cum
4	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	17.06	Cum
5	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.	35.46	Cum
6	Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for: Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level.	55.17	Sqm
7	Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work. 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	9.45	Cum
8	Providing and laying nominal mix reinforced cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work. 1:1½:3 (1 cement : ½ coarse sand : 3 graded stone aggregate 20mm nominal size).	11.63	Cum
9	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete:	2095.50	Kg
10	Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in: Cement Mortar 1:6 (1 cement : 6 coarse sand)	22.31	Cum
11	Columns, Pillars, Piers and likes- rectangular or square in shape	15.90	Sqm
12	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)	63.03	Sqm
13	Beams, lintels, cantilevers & walls	19.89	Sqm
14	Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:	7.78	Cum
15	Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth:	9.32	Cum
16	Half brick thick brick masonry with fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in superstructure above plinth level upto plinth level: Cement Mortar 1:4 (1 cement : 4 coarse sand)	54.73	Sqm

S.No.	Description and details of work	Qty.	Unit
17	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.	43.43	Sqm
18	Providing and fixing steel door/ window with M.S. sheet 1mm thick, frame of angle iron, diagonal braces of angle/ flat iron of suitable size, 3.00 mm M.S. gusset plates at junctions and corners, all necessary fittings complete including applying a priming coat of red oxide zinc chromate primer.	425.25	Kg
19	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat welded to frame with all necessary fitting complete including applying a priming of red oxide zinc chromate primer.	171.90	Kg
20	Providing and fixing M.S. frames of doors, windows, ventilators and cupboards joints mitred and welded with 15x3 mm lugs 10cm long embedded in cement concrete blocks 15x10x10cm of grade M-10 or with wooden plugs and screws or with dash fastener or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.	108.00	Kg
21	Providing and making 6mm thick cement plaster of mix: In Cement mortar 1:4 (1 cement : 4 fine sand)	37.79	Sqm
22	Providing and making 12mm thick cement plaster of mix: In Cement Mortar 1:6 (1 cement : 6 fine sand)	66.13	Sqm
23	Providing and making 15mm thick cement plaster on the rough side of single or half brick wall of mix: In Cement Mortar 1:5 (1 cement : 5 fine sand)	104.32	Sqm
24	Net Cement Punning	35.27	Sqm
25	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement. 40 mm thick	20.41	Sqm
26	Providing and fixing ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall 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 matching pigment complete.	114.09	Sqm
27	Providing and fixing 15mm thick Granite (machine cut, table rubbed & mirror polished on both sides) for partition curtain in toilets or similar locations of required size in wall with cement mortar 1:4 (1 cement : 4 coarse sand) including cutting chase in wall and joint with wall treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish. Granite stone black	0.60	Sqm
28	Providing and laying ceramic glazed floor tiles conforming to IS : 15622 of approved size, make, colour, shade laid on 20 mm thick Cement Mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement mixed with matching pigment etc., complete.	29.03	Sqm
29	Wall painting with acrylic premium emulsion (plastic) paint of required shade to give an even shade. On new work (two or more coats)	68.65	Sqm
30	Painting exterior surface with ACRYLIC SMOOTH exterior paint of required shade as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: On 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)	90.75	Sqm

No.	Description and details of work	Qty.	Unit
31	Painting on new work (two or more coats) to give an even shade with: Satin synthetic enamel paint	39.75	Sqm
32	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	15.30	Sqm
33	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 and salt as required.	1.00	Set
34	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ concealed conduit/ submain wiring/ cable as required.	70.00	Metre
35	Providing and fixing metal clad, SP&N switch fuse unit (re-wirable), 230/250 volts, with porcelain re-wireble fuses including drilling holes on the board, connections, earthing the body etc. as required. (Thimbeling shall be paid separately).	1.00	Each
36	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface steel conduit including painting etc as required. 3 X 2.5 sq. mm in 20mm conduit	25.00	Metre
37	Supplying and fixing on surface/ recess following way, 240 volts SP&N MCB distribution board of sheet steel phosphatized and powder painted complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, including interconnections, earthing etc. as required. (But without MCB/RCCB/Isolator)	1.00	Each
38	Wiring for light/ fan/ exhaust fan / call bell point with 1.5 sqmm FR PVC insulated stranded copper conductor single core cable in concealed steel conduit, with 5 amp piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with same size cable etc as required. Short Point	12.00	Point
39	Medium Point	4.00	Point
40	Long Point	4.00	Point
41	Extra for providing and fixing light plug point on board in concealed steel conduit point wiring with piano type 3 pin 5 amp socket outlet and 5 amp switch including cost of phenolic laminated sheet and M.S. box etc. as required.etc. as required.	2.00	Point
42	Wiring for power plug point with 2x4 sq mm FR PVC insulated stranded copper conductor cable in concealed steel conduit along with piano type 16 amp switch and 6 pin 16 amps socket outlet with suitable size M.S. box, phenolic laminated sheet, earthing the switch box and socket outlet with same size cable etc. as required. Medium Point	2.00	Point


S.No.	Description and details of work	Qty.	Unit
43	Supplying, fixing and testing of approved make bulk head luminaries consisting of pressure die cast Alu. Housing, lamp holder, prismatic glass cover, rubber gasket and wire guard deluxe type including fixing on wall as required, with necessary material complete.	4.00	Each
44	Ceiling rose 3 pin 5 amps	12.00	Each
45	Providing and fixing for house service connection G.I. pipe 50mm dia 3.2 metre long with 2 Nos 50x50x6mm angle iron bracket on wall and 75x90mm shackle insulator with straps including accessories complete	1.00	Set
46	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode at 0.5 Metre depth below ground level including excavation and refilling the trench etc. as required.	10.00	Metre
47	Supplying, installation, testing and commissioning of following concealed type fluorescent fitting (luminaries) complete with electronic ballast/ copper ballast glow type starter (if required) but without fluorescent lamp, in false ceiling hanged with 2 Nos G.I chain to ceiling/ truss frame earthing the fitting etc. as required	2.00	Each
48	Supplying, installation, testing and commissioning of following sizes ceiling fan including wiring the down rods of standard length up to 30 cm with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable, earthing etc. complete as required.	2.00	Each
49	Supplying and installing (overhead) service main with following size PVC insulated PVC sheathed aluminium conductor cables suspended with bobbin insulator on existing bearer wire in an approved manner and as per specification etc. or drawn in existing G.I. pipe bracket or conduit pipe wherever required, including connection, testing etc. 4 x 10 sq. mm	20.00	Metre
50	Supplying, installation, testing and commissioning of following sizes fancy exhaust fan having built in lovers in existing opening in wall including earthing etc. complete as required.	2.00	Each
51	Supplying, fixing, testing and commissioning of following CFL (Built in choke type) in existing lighting luminaries as required.	12.00	Each
52	Providing and fixing white vitreous china urinal basin with waste fitting as per IS : 2556, and other couplings in C.P. brass complete: Flat back half stall urinal of size 460x380x250mm	2.00	Each
53	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required White size 450x325 mm	3.00	Each
54	Providing and fixing 600x450 mm beveled edge 4mm mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	3.00	Each
55	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete, 75 mm dia pipe.	12.00	Metre
56	110 mm dia pipe.	16.00	Metre

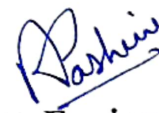
S.No.	Description and details of work	Qty.	Unit
57	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.	5.00	Each
58	Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :	1.00	Each
59	Providing and fixing 15 mm nominal bore Brass bib/stop cock of approved quality: Bib cock (250 grams)	9.00	Nos
60	Stop cock (350 grams)	9.00	Nos
61	Towel rail (600mm long x 20mm dia)	2.00	Nos
62	Soap dish plate	5.00	Nos
63	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. 15 mm nominal outer dia .Pipes.	30.00	Metre
64	20 mm nominal outer dia .Pipes.	18.00	Metre
65	25 mm nominal outer dia .Pipes.	25.00	Metre
66	32 mm nominal outer dia .Pipes.	15.00	Metre
67	40 mm nominal outer dia .Pipes.	20.00	Metre
68	Providing and fixing stainless steel drain jali of approved make/quality.	3.00	Each
69	Providing and fixing brass/ gun metal gate valve with C.I. wheel of approved quality (screwed end): 25 mm nominal bore	1.00	Nos
70	32 mm nominal bore.	1.00	Nos
71	40 mm nominal bore	1.00	Nos
72	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 100 mm diameter	25.00	Metre
73	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete 150mm thick as per standard design: 100 mm diameter S.W. pipe	25.00	Metre
74	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with well burnt modular clay bricks crushing strength not less than 35kg/cm <sup>2</sup> , 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 150 x 100 mm size P type.	3.00	Each
75	Providing and constructing brick masonry chamber for underground pipe and bends with well burnt modular clay bricks crushing strength not less than 35kg/cm <sup>2</sup> in cement mortar 1:4 (1 cement : 4 coarse sand) RCC cover of suitable size and 75mm thick with 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) including reinforcement 8mm dia bars at 150mm both ways and MS hooks for lifting, including foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design : Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :	5.00	nos

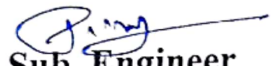
S.No.	Description and details of work	Qty.	Unit
76	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank	2000.00	Litre
77	Providing and fixing water closet squatting pan (Indian type W.C. pan ), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including cutting and making good the walls and floors wherever required White Orissa pattern W.C. pan of size 580x440 mm	0.00	Nos
78	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg.	2.00	Nos
79	Providing and fixing on wall face or under floor UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including required couplers, jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion etc complete. 75 mm dia pipe.	2.50	Metre
80	Boring/drilling bore well perfectly vertical for the specified depth suitable to receive required dia for 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 & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge upto 90 metre depth below ground level. 150 mm dia.	25.00	Metre
81	Rocky strata including Boulders. 150 mm dia.	65.00	Metre
82	Rocky strata including Boulders. 150 mm dia.	20.00	Metre
83	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 & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge. 150 mm nominal size dia.	27.50	Metre
84	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 & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tube well, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	5.00	Hour
85	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 bore well of:	1.00	each
86	Carrying out the resistivity survey by VES method using Schlumberger configuration for locating the proper spot for drilling of tube well within the selected habitation, including photography, interpretation of resistivity data and submission of report in the desired format along with resistivity readings, necessary graph and photographs. (only successful point is payable)	1.00	Point

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No.	Description and details of work	Qty.	Unit
87	Supplying, installation, testing and commissioning of submersible pump set for water supply system with submersible motor directly coupled to multi-stage submersible pump of specified discharge capacity, head, delivery size in existing bore well including 2 sets of suitable size holding clamps made out of 50 mm X 6 mm MS flat, connection with suitable submersible cable of standard length etc. as required.	1.00	each
88	Supply, installation, testing and commissioning of 1-3 HP 1 phase submersible motor starter cum control wall/ floor mounted type made out of not less than 1.6 mm thick MS sheet and comprising of following panel mounting switchgears there in including connection inter-connection etc. as required. a) Phase indicating lamps with fuses and toggle switches 1 set b) 1/2/3 HP 1 phase DOL starter with over load and no volt relay 1 No c) 25 A "C" curve DPMCB 1 No d) Voltmeter 0-250 V 1 set e) Ammeter 0-10 A 1 set	1.00	Each
89	Supplying and fixing of following sizes 'B' class G I pipe with all necessary Tee's, bends, sockets in the suction/ delivery line including cutting and threading etc. as required. 32 mm dia.	30.00	Metre
90	25 mm dia.		Metre
	<b>NON SOR ITEM</b>		
1	Providing and fixing of Robe Hooks in toilets as directed	10.00	Nos
2	Providing and Filling of soak pit with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m Long complete	4.50	Metre

  
Executive Engineer  
Municipal Corporation  
Bhilai (C.G)

  
Asstt. Engineer  
Municipal Corporation  
Bhilai (C.G)

  
Sub. Engineer  
Municipal Corporation  
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