

**BILL OF QUANTITIES FOR SPECIAL REPAIR OF QUARTERS, BOUNDARYWALL AND ROOFING OF
R.T.E.PLANT BADI DISTT. RAISEN**

S.NO.	PARTICULARS OF ITEM	QTY	UNIT
1	Supply & installation of silicon modified polymer precoated galvanised iron profile sheets (size,shape and pitch of corrugation as approved by Engineer-in-charge)0.50 mm +/- 5% total coated thickness (TCT) thick Zinc coating 120gsm as per IS: 277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches while transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge.The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55mm) with EPDM seal or with polymer coated J or L hooks, bolts and nuts 8mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers or with G.I. limpet washers filled with white lead complete upto any pitch in horizontal/ vertical or curved surfaces excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.		
		725.58	Sq. Mtr.
2	Providing and fixing silicon modified polymer precoated galvanised steel sheet roofing accessories 0.50 mm +/- 5% total coated thickness (TCT) thick Zinc coating 120gsm as per IS:277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws or with 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws or with polymer coated J or hooks,bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers complete Ridges plain (500 - 600mm)		
		49.30	R. Metre
	Flashing/Apron	53.20	R. Metre
3	Steel work in built up tubular trusses including cutting, hoisting fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete Hot finished welded type tubes.		
		932.96	K.G.
4	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar		
		5.134	Cu.M.
5	Earth work in excavation by mechanical means Hydraulic excavator manual means in over areas foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed,within a lead of 50m		
		84.15	CU. M.

6	Providing and laying mechanical mixed cement concrete with crushed stone aggregate e/x cost of centering and shuttering (with 40 mm. Nominal size graded stone) (A) IN FOUNDATION AND PLINTH (a) M 10	20.345	Cu. M.
7	Providing and laying in position specified grade of reinforced cement concrete (with 20mm nominal size graded stone aggregate) excluding the cost of centering shuttering, finishing and reinforcement - All work up to plinth level. M 20 Nomial mix	19.425	Cu.M.
8	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire up to floor two level including all wastage etc. complete. Thermo-Mechanically Treated bars.(TMT)	1906.08	K.G.
9	Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete up to plinth level.	12.48	Sq. Mtr.
	Walls (any thickness) including attached pilasters buttersesse s, plinth beams and string courses etc.up to plinth level.	47.30	Sq. Mtr.
	Suspended floors, roofs, landings, balconies and access platform. Shelves (Cast in situ) Lintels, beams, beams, girders, bressumers and cantilevers, Columns, Pillars, Posts and Struts Walls in super structure.	5.76	Sq. Mtr.
10	Brick work with well brunt open bhatta, bricks, crushing strength not less than 25kg /sqcm and water absorpt ion not more than 20% in foundation and plinth Cement Mortar 1:6 (1 cement : 6 sand).	6.646	Cu.M.
11	Providing Half Brick Masonry with well brunt open bhatta, bricks, crushing strength not less than 25kg /sqcm and water absorpt ion not more than 20% in foundation and plinth Cement Mortar 1:4 (1 cement : 4 sand).	47.30	Sq. Mtr.
12	12mm. Thick cement plaster in C:M 1:4(1 cement:4 sand)	210.29	Sq. Mtr.
13	Providing sand faced plaster to concrete or brick masonry surfaces in all positions in two coats, base coat of 13 mm thick in cement mortar 1:4 (1 cement : 4 sand), clearing the surface by combing it and finishing coat of 8mm. thick in cement mortar 1:3 (1 cement: 3 sand) and surface taking out grains by mechanical arrangement by with cost of all material, labour, and T & P including all lead, lift and scaffolding etc. complete.	397.16	Sq. Mtr.
14	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6mm angle iron and 3mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using M.S. angels 40x40x6 mm for diagonal braces	2.21	Sq. Mtr.
15	Providing and fixing factory made ISI marked steel glazed doors, windows		

	and ventilators side /top /centre hung with beading and all members such as K11B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted with 15x3mm lugs,10cm long, embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of hinges,pivots, glass panes with glazing clips and special metal sash putty of approved float make and a priming coat of approved steel primer excluding the cost of metal beading and other fittings except necessary hinges or pivots complete as per approved design. (glass panes paid sepertely)		
		110.16	kg
16	Structural steel work riveted, bolted or welded in builtup for all type sections, trusses and framed work, including cutting,hoisting, fixing in position and applying a priming coat of approved steel primer all complete:		
		137.7	kg
17	Providing and fixing pressed steel door frames confirming to IS: 4351manufactured from commercial mild steel sheet of 1.25 mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike- plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge: Single rebate (size, 100 mm x 50 mm)	50.4	R. Mtr.
18	Providing and fixing glazing in steel doors windows, ventilator, shutters & partitions etc. per hitectural drawing & asper direction of engineer-incharge. With steel beading metal sash puttey. With float glass 4mm thick	10.98	Sq. Mtr.
19	Providing and laying Ceramic glazed floor tiles of any size (9-10mm thickness) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 sand) including pointing the joints with white cement and matching pigment etc., complete.	32.91	Sq. Mtr.
20	Providing and laying Ceramic glazed wall tiles of (9-10mm thickness) of size 300x450mm 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 sand) including pointing the joints with white cement and matching pigment etc., complete.	91.43	Sq. Mtr.
21	Demolishing cement concrete manually/ by mechanical means 1:3:or richer mix	12.874	Cu.M.
22	Dismantling tile work in floors and roofs laid in cement mortar including		

	stacking material within 50 metres lead.For thickness of tiles 10 mm to 25 mm		
		297.5	Sq. Mtr.
23	Providing and laying polished vitrified floor tiles in different sizes of 10mm thickness with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 60x60 cm	227.54	Sq. Mtr.
24	Finishing walls with Acrylic Smooth exterior paint of required shade : Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface).	3065.5	Sq. Mtr.
25	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade : One or more coats on old work.	930.62	Sq. Mtr.
26	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work.	567.28	Sq. Mtr.
27	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters : 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	18.45	Sq. Mtr.
28	Providing and fixing bright finished brass handles with screws etc. complete : 100 mm	22	No.
29	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete : 150x10 mm	11	No.
30	Providing and fixing bright finished brass door latch with necessary screws etc. complete : 250x16x5 mm	11	No.
31	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid,10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS : 7231,with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	1	No.
32	Providing and fixing water closet squatting pan (Indian type W.C. Pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flusing		

	cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixture complete including cutting and making good the walls and floors wherever required.		
	White Vitreous china Orissa pattern W C pan of size 580x440mm with W.C. integral type foot rests.		
		4	No.
33	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 15 mm nominal bore.		
		8	No.
34	Providing and fixing wash basin with C.I. brackets, 15 mm C.P.brass pillar taps,32 mm C.P. brass wa ste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Flat back wash basin size 550x400mm with single 15 mm C.P. brass pillar tap.		
		5	No.
35	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15 mm nominal bore.		
		6	No.
36	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : 15 mm nominal bore		
		4	No.
37	Providing and placing on terrace (at all floor levels) high dersign HDPE (polyethylene) water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank		
		2000	Ltr.
38	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore 18.53.1 15 mm nominal bore.		
		2	No.
39	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying: a) after surface preparation,first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. b) laying second layer of Fibre glass cloth when the first layer is still green.Overlaps of joints of fibre cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of slurry of cement @1.289 kg/sqm mixed with water proofing cement compound @0.670 kg/sqm and sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30cm on parapet wall and tucked into groove in parapet all around. (with five years service gurantee).		
		833.92	Sq. Mtr.
40	Providing and fixing Stainless Steel ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and 40 mm stainless steel plug including painting of		

	fittings and brackets, cutting and making good the walls wherever required :		
	Kitchen sink without drain board		
	610x510 mm bowl depth 200 mm.		
		1	No.
41	Providing and fixing stone slab 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 sand: 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-incharge and finished smooth.		
	Granite Stone of approved shade.		
		2.73	Sq. Mtr.
42	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. hoisting, fixing in position and applying a priming coat of approved steel		
	In gratings, frames, guard bar, ladder, railings, brackets gates and similar works	500	K.G.
43	Supply and installation of hurricane 600mm wind driven turbine ventilators (mill finish)throat width 600mm,the turbine head and variable angle elbow is manufactured out of aluminium alloy having 0.71 mm thick vanes to be based of 1.00 mtr x1.70 mtr.inclusive of polycarbonate sheets base,the shaft is made out of stainless steel and the installation using s.s. hardware and EPDM rubber washers and with double row ball bearing system. With supply and erection		
		16	K.G.

**EXECUTIVE ENGINEER
HEAD OFFICE
BHOPAL**