

FIROZABAD SHIKOHABAD DEVELOPEMENT AUTHORITY

Name of Work : Construction of 4 storied two roomed flats in varios parts in following groups at Garhi Chhatrapati /Pachwan in Firozabad.

(Tick the selected site. If the site is not selected the depts. will all of site itself)

- Part A 302 Flats
- Part B 208 Flats
- Part C 96 Flats
- Part D 48 Flats

Note : Following B.O.Q. is for a cluster of 32 flats. Tenderers are advised to workout the appropriate quantities and amount at their selected part.

Construction Cost of 32 Flats cluster

Rs. 4200896.83

Cost of one unit

Bill of quantity for 32 houses						B.O.Q. For Resp. Part	
S. No.	Item of Work	Qty.	Unit	Rate	Amount	Qty.	Amount
1	2	3	4	5	6	7	8
1	Earth work in excavation in trenches for foundation, pipes cable etc in ordinary soil (loam clay or sand) including lift upto 1: 5 m. lead upto 30 m and dressing of sides and ramming of bottom and disposal of surplus excavated earth as directed by the Engineer l/c (SI no. 251)	164.00	cum	28.00	4592.00		
2	Earth filling in ordinary soil in 20 cms layers including ramming,dressing and watering the ssurface levels and slopes and also including lead upto 30 m. and lift upto 1.5 m including cartage of earth for 3 kms and royalty @ Rs 6.00 per cum.	229.00	cum	68.27	15633.83		
3	Sand filling in plinth and under floors including consolidation,dressing, ramming and watering complete including lead upto 30 m. and lift upto 1.5 m & including cost of sand .	36.00	cum	147.00	5292.00		
4	Provides & laying in cement concrete 1:6:12 with cement, coarse sand and with 40 mm nominal size brick ballast & curing complete, including cost of form work in foundation and under floors. (S.I. no. 273)	52.00	cum	1180.00	61360.00		
5	Class M 100 Brick in 1:6 cement and fine sand mortar in foundation & plinth including supply of all materials, labour Tools & Plants etc. required for proper completion of the work (S.I. no. 303)	52.00	cum	1460.00	75920.00		
6	R.C.C. work with cement, approved coarse sand and 20 mm gauge stone grit in proportion of 1:1.5:3 (ons cement :1.5 c. sand : 3 stone grit of 20 mm nominal size) in raft foundation excluding supply of reinforcement and its bending but including its fixing and binding the same with 24 B. W. G.G.I. binding wire and necessary centering and shottering etc and also including supply of all materials labour & T& P etc. required for proper completion of works.	31.00	cum	2959.00	91729.00		
7	R.C.C. work with cement, approved coarse sand and 20 mm gauge stone grit in proportion of 1:1.5:3 (1 cement :1.5 c. sand : 3 stone grit of 20 mm nominal size) in plinth beam excluding supply of reinforcement and its bending but including its fixing and binding the same with 24 B.W. G.G.I. binding wire and necessary centering and shuttering etc and also including supply of all materials labour & T& P etc. required for proper completion of works.	12.50	cum	3629.00	45362.50		
8	R.C.C. work with cement, approved coarse sand and 20 mm gauge stone grit in proportion of 1:1.5:3 (1 cement :1.5 c. sand : 3 stone grit of 20 mm nominal size) in lintals excluding supply of reinforcement and its bending but including its fixing and binding the same with 24 B.W. G.G.I. binding wire and necessary centering and						

	shuttering etc and also including supply of all materials labour & T& P etc. required for proper completion of works.					
		G.F.	1.25	cum	3019.00	3773.75
		F.F.	1.25	cum	3049.00	3811.25
		S.F.	1.25	cum	3079.00	3848.75
		T.F.	1.25	cum	3110.00	3887.50
9	Painting of DPC with two coats of airblown bitumen 85/50 or 85/25@ 1.7 kg/sqm approx including cost of fuel if any.		43.00	sqm	33.00	1419.00
10	Class M 100 Brick work in 1:4 cement and fine sand mortar in super structure including supply of all materials, labour Tools & Plants etc, required for proper completion of the work.					
		UP TO TWO FLOOR	162.00	cum	1625.00	263250.00
		AT Second FLOOR	81.00	cum	1657.00	134217.00
		AT Third FLOOR	110.00	cum	1674.00	184140.00
11	Class M 100 Brick work in 1:4 cement and fine sand mortar in super structure For 4.5" thick wall including supply of all materials, labour Tools & Plants etc, required for proper completion of the work.					
i		UP TO TWO FLOOR	32.00	cum	1660.00	53120.00
ii		AT Second FLOOR	16.00	cum	1693.00	27088.00
iii		AT Third FLOOR	16.00	cum	1710.00	27360.00
12	Class M 150 Brick work in 1:3 cement and coarse sand mortar in super structure For 3" thick wall including supply of all materials, labour Tools & Plants etc, required for proper completion of the work.					
I		UP TO TWO FLOOR	1.50	cum	1965.00	2947.50
II		AT Second FLOOR	0.75	cum	2004.00	1503.00
II		AT Third FLOOR	0.75	cum	2024.00	1518.00
13	R.C.C. work with cement, approved coarse sand and 20 mm gauge stone grit in proportion of 1:1.5:3 (ons cement :1.5 c. sand : 3 stone grit of 20 mm nominal size) in COLUMN excluding supply of reinforcement and its bending but including its fixing and binding the same with 24 B. W. G.G.I. binding wire and necessary centering and shuttering etc and also including supply of all materials labour & T& P etc. required for proper completion of works.					
I		GF	11.00	cum	3859.00	42449.00
II		FF	8.50	cum	3897.50	33128.75
III		SF	8.50	cum	3936.00	33456.00
IV		T.F.	9.50	cum	3975.00	37762.50
14	R.C.C. work with cement, approved coarse sand and 20 mm gauge stone grit in proportion of 1:1.5:3 (1cement :1.5 c. sand : 3 stone grit of 20 mm nominal size) in T beam& Slab roof excluding supply of reinforcement and its bending but including its fixing and binding the same with 24 B.W. G.G.I. binding wire and necessary centering and shuttering etc and also including supply of all materials labour & T& P etc. required for proper completion of works.					
I		GF	45.00	cum	3859.00	173655.00
II		FF	45.00	cum	3898.00	175410.00
III		SF	45.00	cum	3936.00	177120.00
IV		T.F.	48.00	cum	3975.00	190800.00
15	R.C.C. work with cement, approved coarse sand and 20 mm gauge stone grit in proportion of 1:1.5:3 (1cement :1.5 c. sand : 3 stone grit of 20 mm nominal size) in Slab excluding supply of reinforcement and its bending but including its fixing and binding the same with 24 B.W.					

	G.G.I. binding wire and necessary centering and shuttering etc and also including supply of all materials labour & T& P etc. required for proper completion of works.										
I				GF	3.50	cum	3449.00	12071.50			
II				FF	3.50	cum	3483.50	12192.25			
III				SF	3.50	cum	3518.00	12313.00			
IV				TF	3.50	cum	3552.50	12433.75			
16	M.S or iron (T or steel) in plain work such as R.C.C. or R.B work wrought to required shape as necessary including supply of steel, its wastage, bend hooks and authorised overlapping shall be measured including cost of steel and binding wire etc.										
a	6mm										
I				Up to FF	8.00	Qtl	3210.00	25680.00			
II				SF	3.00	Qtl	3274.00	9822.00			
III				T.F.	3.00	Qtl	3306.00	9918.00			
b	8mm										
I				Up to FF	36.00	Qtl	3150.00	113400.00			
II				SF	18.00	Qtl	3213.00	57834.00			
III				T.F.	18.00	Qtl	3244.00	58392.00			
c	10 to 12mm										
I				Up to FF	35.00	Qtl	3040.00	106400.00			
II				SF	25.00	Qtl	3101.00	77525.00			
III				T.F.	25.00	Qtl	3131.00	78275.00			
d	16 to 32mm										
I				Up to FF	35.00	Qtl	3060.00	107100.00			
II				SF	8.00	Qtl	3121.00	24968.00			
III				T.F.	8.00	Qtl	3152.00	25216.00			
17	M.S. or iron work of small size sections such as holding down bolts hold fasts tei rods, gratings etc wrought to required form including supply of steel & its wastages including holes nuts if required proper completion of the work. (S.I. no. 502/2008)										
a	Fabrication of grills/railing in stair case				6.80	Qtl	3600.00	24480.00			
b	Fabrication of Z-secsteel windows including necessary steel fittings such as handles. Stay etc (openable)				27.50		3800.00	104500.00			
18	M.S. or iron work of heavy sizes sections such as trusses, bilt up gates, record racks, roof work , gates etc wrought to required form including drilling holes rivettings or welding where necessary and also including supply of steel & its wastages including bolts, nuts ctc and their fixing required for proper completion of the work . (S.I. no. 502/2008)				25.00	Qtl	3552.00	88800.00			
19	P/F panes of glass (2.8-3.7thick) with equal or equevelent I S I marked quality putty. Brads and springs and including supply of all materials and labour etc. complete.				137.00	sqm	250.00	34250.00			
20	Supply & fixing of fully 35 mm thick flush doors commercial quality ISI conforming to I.S. 2202 part I (1983) including fixing of wooden cleats and stopper and including fixing and adjustment of hinges bolts locks handles springs fitting with necessary screws etc, complete (S.I. no. 470/2008)				280.00	sqm	880.00	246400.00			
21	10 mm thick Cement plaster in single coat on side of single or half brick wall for interior & outer plastering upto floor two level including internal rounded angles, chamfers, and/ or rounded angles not exceeding 80mm in girth and finished even and smooth. No extra for mixing										
I				Up to two storey	1133.00	sqm	38.20	43280.60			
II				For S.F.	575.00	sqm	39.00	22425.00			
III				For T.F.	740.00	sqm	39.35	29119.00			

22	As above item but for 15 mm plaster						
I	Up to two storey	1133.00	sqm	50.40	57103.20		
II	For S.F.	575.00	sqm	51.40	29555.00		
III	For T.F.	740.00	sqm	51.90	38406.00		
23	20 mm thick plaster in two coats baking coat 17 mm and finishing coat 3 mm thick of neat cement and marble dust in ratio 5:1 on single or half on interro plastero including internal rounded angles chamfers and finished even and smooth in 1:3 cement & coarse sand mortar	408.00	sqm	81.70	33333.60		
24	40 mm thick cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of size 20 mm nominal size) laid in one layer finished with floating coat of neat cement) .(as per P W D SI NO 665.00/14.71 NBO/2008)						
I	G.F.	238.00	sqm	126.80	30178.40		
II	F.F.	200.00	sqm	128.05	25610.00		
III	S.F.	200.00	sqm	129.30	25860.00		
IV	T.F.	200.00	sqm	130.60	26120.00		
25	P/F glas strip 32mm X 2.8 to 3.7 mm	3400.00	Rmt	4.60	15640.00		
26	Painting two coats (including cost of priming coat) on steel and other metal surfaces upto 10 cm width or girth or small articles not exceeding 0.10 sqm in area with superior synthetic enamel such as Luxol-3, Hi-glass apcolite ,super lac , Dulux ,specified brushing to give an even shade and including cleaning the surface of all dirt, dust and other foreign matters , sand papering and scrapping also including cost of all materials, labour and tools and plants required for proper completion of the work.	140.00	sqm	47.94	6711.60		
27	As above item but on wooden surface	630.00	sqm	50.10	31563.00		
28	While washing with lime on undercoated wall surfaces (three coat) to give an even shade and including thoroughly brooming the surface to remove all dirt, dust mortar drops and other foreign matter. (S.I. no. 18 11/2008)	3240.00	sqm	4.25	13770.00		
29	Finishing wall with water proof cement paint of approved make such as super Snocem, durochem,Robiacem, Guttucem ,Supercem quality and of required shade on undecorated wall surface (Two coats)over and including one coat white cement paint to give an even shade after thoroughly brushing the surface to powdered material including curring and cost of materials.	1180.00	sqm	33.30	39294.00		
30	Providing & fixing 75 mm, B class ISI marked PVC spout pipe complete.	12.00	Rmt	110.00	1320.00		
31	Numbering of Flats as per L.D.A. norms.	32.00	Rmt	25.00	800.00		
32	Making groves 10 X12 mm wide & 8 mm deep in plaster of all or in cielling vertically or horizontally as required	2880.00	Rmt	4.25	12240.00		
33	Approx . Cost of I.S.I marked Oxidised iron fittings fitting with screws for door and windows etc.	280.00	sqm	165.00	46200.00		
34	Fixing of M.S. or wooden Chaukhats in its true position						
	(1) Door chaukhata	164.00	Each	60.00	9840.00		
	(2) Window chaukhata	96.00	Each	40.00	3840.00		
	(3) Ventilator chaukhata	64.00	Each	28.00	1792.00		
35	S/F of 110 mm dia PVC down pipe complete with rose head, bends etc.	101.00	Rmt	242.50	24492.50		
36	Panting top of roofs with bitumen of aproved quality @ 170 Kg per 100 sqm impregnaped with a coat of coarse sand @ 0.6 cum per 100 sqm including clearing the slabe	230.00	sqm	37.00	8510.00		

	surface with a piece of cloth likely soked in kerosens oil complete						
37	100 mm thick average mud phuska of damped brick earth on roof laid to slope consolidated and plastered with 25mm thick mud mortar mixed with bhusa 10 kg per cum of earth and gobri leaping with mix 1:1 (clay and cowdung) and covered with cement mortar 1:3 (1 cement 3 sand) and finished neat including cost of brick tiles.	230.00	sqm	155.00	35650.00		
38	Supply & filling of cinder in sunken floors including supply of all materials & labour required for proper completion of the work as per direction og E/ I.						
	F.F.	4.00	cum	250.00	1000.00		
	S.F.	4.00	cum	252.50	1010.00		
	T.F.	4.00	cum	255.00	1020.00		
	Sanitary work						
1	Providing and fixing white vitreous china water closet squatting pan of size 580 mm (Indian type W.C. pan) with 100 mm S.C.I. P or S trap, 10 litre low level PVC flushing cistern (of approved make) with fittings CI / MS brackets ,32mm dia flush pipe with fittings and clamps, over flow arrangement with specials and moquito proof coupling of approved municipal design including painting of fittings and brackets cutting and making good the walls and floors wherever required.	32.00	Each	1670.00	53440.00		
2	Providing and fixing following dia PVC pipe heavy quality 4kg per sqcm working pressure including digging and filling trenches and supply of all specials clamps and other material labour and T&P etcrequired for proper completion of the work as per direction of E/ I.The pipe shall be						
a	110 mm dia	63	Rmt	242.50	15277.50		
b	90 mm dia	390.00	Rmt	135.50	52845.00		
3	Providing & fixing M.S. holder - bat clamps of approved design to PVC. pipe embedded in & including cement concrete blocks 10 X 10 X 10 cm. of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominnal size)	48.00	Each	45.00	2160.00		
4	Providing and fixing following dia PVC fittings including all complete.						
	1- Tee 110xx110x110mm	48.00	each	126.00	6048.00		
	2- Tee 90xx90x90mm	32.00	each	84.70	2710.40		
	3 Plain short band 110mm	24.00	each	83.70	2008.80		
	4 Plain short band 90mm	32.00	each	46.40	1484.80		
	5 Collar 110mm	32.00	each	14.10	451.20		
	6 Collar 90mm	32.00	each	8.65	276.80		
5	Providing & fixing HCl nahani Trap Indian marka of approved quality complete with C P brass gratings Nahani trap laid over base concrete in 1:6:12 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominnal size) including supply of all materials, labour Tools & Plants etc. required for proper completion of the work.	64.00	each	360.00	23040.00		
6	Providing & fixing HCl Master Trap Indian marka of approved quality complete with C P brass gratingsMaster trap laid over base concrete in 1:6:12 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominnal size) including supply of all materials, labour Tools & Plants etc. required for proper completion of the work.	8.00	each	240.00	1920.00		
7	Providing & fixing HCl Gully Trap Indian marka of approved quality complete with C P brass gratings Gully	8.00	each	265.00	2120.00		

	trap laid over base concrete in 1:6:12 (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including supply of all materials, labour Tools & Plants etc. required for proper completion of the work.						
8	Providing & fixing 90mm PVC terminal guard approved quality ISI marked including supply of all materials, labour Tools & Plants etc. required for proper completion of the work.	8.00	each	27.20	217.60		
9	Construction of brick masonry manhole size 0.45 X 0.45X0.60 m with M- 150 brick work in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top 3 inch thick slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 grade stone aggregate 20 mm nominal size)	8.00		1275.00	10200.00		
10	Providing & fixing 15mm dia nominal bore G.I pipes complete with all fittings and clamps including cutting and making good the walls etc. (internal work) with B-class GI pipe.	848.00	Rmt	79.00	66992.00		
11	Providing & fixing C.P. gate valve with C.I. wheel of approved quality (screwed end)	32.00	each	258.00	8256.00		
12	Providing & fixing 15 mm nominal bore CI 200 gms bib cock of approved quality conforming to IS 8931.	96.00	each	40.00	3840.00		
13	Providing and fixing 15mm nominal bore 30 cm long Plaasticised PVC connection Pipe with brass unions.	32.00	each	30.00	960.00		
14	Supply & hoisting of Sintex or equivalent high density polyethylene one piece moulded tank and placing the same in proper position including all taxes labour Tools & Plants etc. required for proper completion of the work.	32.00	each	500.00	16000.00		
15	Providing and fixing ball valve(brass) high or low pressure with plastic float 15mm nominal bore of approved quality complete.	32.00	each	140.00	4480.00		
16	Supply & fixing of 20 mm dia 2 mm thick conduit pipe with ISI make in walls	800.00	Rmt	38.00	30400.00		
17	Same as in item no. 1 but for 20 mm dia pipe in slab	640.00	Rmt	45.00	28800.00		
18	Supply and fixing of MS box type fan clamp 16mm dia Key node complete in all	64.00	each	64.00	4096.00		
Electrification							
1	S/Fof switch boxes madeup of 16 SWG (1.5).thick M.S.sheet duly painted with red oxide primer and flushed in wall including cutting of brick work fixing it to the level with cement sand mortar including matching colour wash with supply of all materials labour T&P required for proper completion of work as directed by E/I.						
a	100 X100 X65 mm	64.00	each	31.50	2016.00		
b	100 X 175 X65 mm	32.00	each	50.00	1600.00		
c	200x250x65 mm	64.00	each	71.00	4544.00		
2	Wiring point for light with 1 sqmm FR PVC insulated multistrand single core copper conductor cable in PVC conduit partly cocealed in the wall and partly laid in slab along with the reinforcement before concreting , complete wwith 1,5 sqmm FFR PVC insulated multistrand single core copper conductor cable as earth wire drawn inside complete with piano type switcch and ceiling rose /angle/batten holder on 3mm thick phenolic paminated backalite sheet etc completion in all respect as direccted by E/I including matching colour wash .	160.00	each	366.00	58560.00		
3	Wiring point for two way light with 1 sqmm FR PVC insulated multistrand single core copper conductor cable in PVC conduit partly cocealed in the wall and partly laid	32.00	each	483.00	15456.00		

	in slab along with the reinforcement before concreting , complete wwith 1,5 sqmm FFR PVC insulated multistrand single core copper conductor cable as earth wire drawn inside complete with piano type switcch and ceiling rose /angle/batten holder on 3mm thick phenolic paminated backalite sheet etc completion in all respect as direccted by E/I including matching colour wash .					
4	Wiring point for fan with 1 sqmm FR PVC insulated multistrand single core copper conductor cable in PVC conduit partly cocealed in the wall and partly laid in slab along with the reinforcement before concreting , complete wwith 1,5 sqmm FFR PVC insulated multistrand single core copper conductor cable as earth wire drawn inside complete with piano type switcch and ceiling rose /angle/batten holder on 3mm thick phenolic paminated backalite sheet etc completion in all respect as direccted by E/I including matching colour wash .	64.00	each	442.00	28288.00	
5	Wiring point for Plug with 1 sqmm FR PVC insulated multistrand single core copper conductor cable in PVC conduit partly cocealed in the wall and partly laid in slab along with the reinforcement before concreting , complete wwith 1,5 sqmm FFR PVC insulated multistrand single core copper conductor cable as earth wire drawn inside complete with piano type switcch and ceiling rose /angle/batten holder on 3mm thick phenolic paminated backalite sheet etc completion in all respect as direccted by E/I including matching colour wash .	96.00	each	200.00	19200.00	
				Total	4200896.83	

Please tick mark the selected part to be tendered of the following parts

Part A-1	Garhi Chhatrapati site	302 Flats
Part A-2	Pachwan site.	302 Flats
Part B-1	Garhi Chhatrapati site	208 Flats
Part B-2	Pachwan site.	208 Flats
Part C-1	Garhi Chhatrapati site	96 Flats
Part C-2	Garhi Chhatrapati site	96 Flats
Part C-3	Pachwan site.	96 Flats
Part C-4	Pachwan site.	96 Flats
Part D-1	Garhi Chhatrapati site	48 Flats
Part D-2	Pachwan site.	48 Flats