

**SUMMARY OF COST FOR CONSTRUCTION OF PROPOSED BOYS' HOSTEL
AT RAU-PUSA**

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A)	SCHEDULE WORKS :-		
1)	Civil Works	Rs.	75,30,282.17
2)	Site Development & Landscaping Works	Rs.	14,974.02
3)	Storm Water Drain Works	Rs.	35,653.43
	SubTotal :	Rs.	75,80,909.62
B)	NON - SCHEDULE WORKS :-		
1)	Civil Works	Rs.	77,480.00
2)	Electrical Works	Rs.	3,39,900.00
3)	Road Works	Rs.	61,875.00
4)	Storm Water Drain Works	Rs.	875.00
5)	Fire	Rs.	1,04,630.00
	Sub total	Rs.	5,84,760.00
	Grand total (A+B)	Rs.	81,65,670.00

ABSTRACT OF COST FOR CIVIL WORKS FOR BOYS HOSTEL AT RAU-PUSA			
Sl. No.	Description		Amount (Rs.)
	SCHEDULE ITEM (Based on DSR-2007)		
I)	EARTH WORK		33,726.60
II)	CONCRETE WORK		2,13,603.63
III)	REINFORCED CEMENT CONCRETE WORK		20,80,117.51
IV)	STEEL REINFORCEMENT		22,42,250.87
V)	BRICK WORK		5,50,667.40
VI)	WOOD WORK		2,28,652.45
VII)	STEEL WORK		1,03,609.50
VIII)	PVC WORK		2,21,350.96
IX)	FLOORING		6,41,810.46
X)	FINISHING		7,16,908.30
XI)	ROOFING		2,06,589.60
XII)	INTERNAL WATER SUPPLY		44,348.44
XIII)	INTERNAL SANITARY INSTALLATIONS		1,44,758.95
XIV)	WATER PROOFING		1,01,887.50
	TOTAL CIVIL WORK :	Rs	75,30,282.17
	SAY :	Rs	75,30,282.17

**DETAIL ESTIMATE FOR CIVIL WORKS FOR PROPOSED BOYS' HOSTEL AT RAU-PUSA
BASED ON DELHI SCHEDULE OF RATES 2007**

Sl. No.	Description of Items	Quantity	Unit	Rate (CPWD DSR-07)	Amt (Rs.)	CPWD DSR-07 Item Code No.
1	2	3.00	4	5	6	7
1	SCHEDULE ITEM					
I.	EARTH WORK					
1	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	738.00	Cum.	45.70	33,726.60	2.25
	SUB TOTAL :				33,726.60	
II.	CONCRETE WORK					
6	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level. i) 1 : 3 : 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) in PCC under Columns and steps	32.22	Cum.	2,791.05	89,927.63	4.1.5
	ii) 1 : 4 : 8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	37.00	Cum.	2,449.00	90,613.00	4.1.8
7	Providing and laying damp-proof Coarse 40 mm thick with cement concrete 1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size).	105.00	Sqm.	144.15	15,135.75	4.10
8	Extra for providing and mixing water proofing material in cement concrete work @ 1 kg per 50 kg of cement.	14.00	Per 50 Kg. Cement	27.45	384.30	4.12
9	Applying a coat of residual petroleum bitumen of penetration 80/100 of approved quality using 1.75kg per sqm. on damp proof Coarse after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	60.00	Sqm.	58.60	3,516.00	4.13
10	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	63.00	Sqm.	222.65	14,026.95	4.17
	SUB TOTAL :				2,13,603.63	
III.	REINFORCED CEMENT CONCRETE WORK					
11	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering, finishing and reinforcement including admixtures in recommended portions (as per IS:9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability as per direction of Engineer-in-Charge - M-25 grade reinforced cement concrete by using 410kg of cement per cum of concrete (a) All work up to roof level	355.37	Cum	4,147.40	14,73,861.54	5.33
12	Centering and shuttering including strutting, propping etc. and removal of form for : a) Foundation, footings, bases of columns etc. for mass concrete.	634.31	Sqm.	119.25	75,641.47	5.9.1
	b) Suspended floors, roofs, landings, balconies and access platform	708.00	Sqm.	187.35	1,32,643.80	5.9.3
	c) Lintels, beams, plinth beams, girders, bressumers and cantilevers	1,610.00	Sqm.	162.65	2,61,866.50	5.9.5
	d) Stairs, except spiral staircase (excluding landing).	32.00	Sqm.	204.00	6,528.00	5.9.7
	e) Columns, Pillers, Piers, Abutments, Posts and Struts.	460.00	Sqm.	238.40	1,09,664.00	5.9.6
	f) Weather shad, chajjas, corbels etc. including edges	77.00	Sqm.	258.60	19,912.20	5.9.19
	SUB TOTAL :				20,80,117.51	
IV.	STEEL REINFORCEMENT					
16	Providing and fixing Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo - Mechanically Treated Bars	52,511.73	Kg.	42.70	22,42,250.87	5.22.6
	SUB TOTAL :				22,42,250.87	
V.	BRICK WORK					
18	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in : Cement mortar 1 : 6 (1 cement : 6 coar sand).	49.00	Cum.	2,121.75	1,03,965.75	6.1.2
19	Brick work with F.P.S. bricks of class designation 75 in super structure above plinth level upto floor V level in all shapes and sizes in cement mortar 1 : 6 (1cement : 6 coarse sand).	169.00	Cum.	2,357.40	3,98,400.60	6.4.2
20	Half brick masonry with F.P.S. bricks of class designation 75 in super structure above plinth level upto floor V level in Cement mortar 1 : 3 (1 cement : 3 coarse sand).	126.00	Sqm.	322.00	40,572.00	6.13.1
22	Extra for providing and placing in position 2 Nos. 6 mm dia. M.S. bars at every third Coarse of half brick masonry (with F.P.S. bricks).	126.00	Sqm.	47.80	6,022.80	6.15
23	Brick edging 7cm wide 11.4cm deep to plinth protection with bricks of class designation 75 including grouting with cement mortar 1:4 (1cement : 4 fine sand)	105.00	Meter	16.25	1,706.25	6.44

Sl. No.	Description of Items	Quantity	Unit	Rate (CPWD DSR-07)	Amt (Rs.)	CPWD DSR-07 Item Code No.
1	2	3.00	4	5	6	7
	SUB TOTAL :				5,50,667.40	
VI. WOOD WORK						
24	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part-1) non decorative type, core of block board construction with frame of M.S angle iron 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.	60.00	Sqm.	929.95	55,797.00	9.21.1
25	Providing and fixing 18mm thick, 150mm wide pelmet of flat pressed 3 layer or graded wood particle board medium density grade I, IS : 3087 marked including top cover of 6mm commercial ply wood conforming to IS : 303 BWR grade, nickel plated M.S. pipe 20mm dia (heavy type) curtain rod with nickel plated brackets including fixing with 25x3mm M.S. flat 10cm long and rawl plugs 50mm long (designation 10 no.) etc all complete	75.00	Metre	208.70	15,652.50	9.42
26	Providing and fixing 25 mm thick shutters for cupboards etc. including ISI marked black enamelled M.S. butt hinges with necessary screws. Second Class Teak Wood.	101.00	Sqm.	1,312.95	1,32,607.95	9.19.1.1
27	Providing and fixing aluminium sliding door bolts ISI marked anodized (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete: 300 x 16 mm.	46.00	Each	158.50	7,291.00	9.96.1
28	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete : 250 x 10 mm.	46.00	Each	62.20	2,861.20	9.97.2
29	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete : 125 mm.	46.00	Each	48.80	2,244.80	9.100.1
30	Providing and fixing special quality bright finished brass cupboard or wardrobe locks with four levers including necessary screws etc. complete (best make of approved quality). 40mm	60.00	Each	75.95	4,557.00	9.79.1
31	Providing and fixing 50mm bright finished brass cupboard or wardrobe knob with necessary screws (best make of approved quality).	60.00	Each	23.70	1,422.00	9.80
32	Providing and fixing bright finished brass handles with screws etc. 125mm	60.00	Each	103.65	6,219.00	9.81.1
	SUB TOTAL :				2,28,652.45	
VII. STEEL WORK						
33	Providing and fixing factory made ISI marked steelglazed doors, windows and ventilators side/top/centre hung with beading and all members such as K11B and K12B 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 (1cement : 3coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing or hinges, pivots, float glass panes with glazing clips and special metal sash putty of approved 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 approval design.	98.00	Rm.	178.90	17,532.20	10.11
34	Providing and fixing bright finished brass casement stays (straight peg type) with with necessary screws etc. complete. 300mm weighing not less than 330gms.	138.00	Each	82.50	11,385.00	9.86.1
35	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar bent to shape with hooked ends in RCC slabs, beams during laying including painting the exposed portion of loop, all as per standard design complete	60.00	Nos.	75.20	4,512.00	10.17
37	Providing and fixing M.S grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. all complete. Fixed to steel windows by welding.	772.00	kg	59.25	45,741.00	9.48.1
38	Steel work welded in built up sections / framed work including cutting hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works.	477.33	Kg.	51.20	24,439.30	10.25.2
	SUB TOTAL :				1,03,609.50	
VIII. PVC WORK						

Sl. No.	Description of Items	Quantity	Unit	Rate (CPWD DSR-07)	Amt (Rs.)	CPWD DSR-07 Item Code No.
1	2	3.00	4	5	6	7
40	Providing and fixing factory made PVC door frame of size 50 x 47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet mitred at corners and joined with 2 nos. of 150 mm long brackets of 15 x 15 mm M.S. square tube, the vertical door profile to be reinforced with 19 x 19 mm M.S. square tube of 19 guage, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size complete as per manufacturers specification and direction of Engineer-in-Charge.	75.00	Metre	353.10	26,482.50	9.119
41	Providing and fixing to existing door frame 30mm thick factory made Polyvinyl Chlorid (PVC) door shutter made of styles and rails of a UPVC hollow section of size 60x30 mm and wall thickness 2mm ± 0.2mm with inbuilt decorative moulding edging on one side. The styles and rails mitred and joined at the corners by means of M.S. galvanised / plastic brackets of size 75x220mm having wall thickness 1.0mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1mm ± 0.1mm wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100x30 and 2mm ± 0.2mm wall thickness fixed to the shutter styles by means of plastic / galvanised M.S. 'U' cleats. The shutter frame filled with a UPVC multi-chambered single panel of size not less than 620mm, having over all thickness of 20mm and 1mm ± 0.1mm wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	20.48	Sqm.	2,271.80	46,526.46	9.118.2
42	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts, and wooden plugs and embeddings in cement concrete block 30 x 10 x 5 cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	276.00	Each	61.50	16,974.00	9.53
43	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. (I) Single socketed pipes : 110 mm diameter.	750.00	Metre	163.40	1,22,550.00	12.40.2
44	Providing and fixing on wall face unplasticised - PVC moulded fittings / accessories for unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion : Bend 87.5 degree : 110 mm bend.	10.00	Each	134.20	1,342.00	12.42.5.2
45	Providing and fixing on wall face unplasticised - PVC moulded fittings / accessories for unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion : Shoe (Plain) : 110 mm Shoe.	10.00	Each	263.10	2,631.00	12.42.6.2
46	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50 x 50 x 50 mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing in cement mortar 1 : 4 (1 cement : 4 coarse sand) and making good the wall etc. complete - 110 mm.	50.00	Each	96.90	4,845.00	12.43.2
SUB TOTAL :					2,21,350.96	
IX. FLOORING						
47	Providing and fixing Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colors such as White, Ivory, Grey, Fume Red Brown laid on 20 mm thick Cement Mortar 1 : 4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc. complete.	692.70	Sqm.	598.65	4,14,684.86	11.37
48	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 thickness to be specified by the manufactures (of approved make in all colors, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of Cement Mortar 1 : 3 (1 Cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	179.56	Sqm.	556.60	99,943.10	11.36
49	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement : 4coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy tough ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all levels. Granite of any colour and shade. Area of slab over 0.50sqm.	50.00	Sqm.	2,543.65	1,27,182.50	8.2.2.2
SUB TOTAL :					6,41,810.46	

Sl. No.	Description of Items	Quantity	Unit	Rate (CPWD DSR-07)	Amt (Rs.)	CPWD DSR-07 Item Code No.
1	2	3.00	4	5	6	7
X.	FINISHING					
50	20 mm cement plaster on the rough side of single or half brick wall of mix - 1 : 6 (1 cement : 6 core sand) on the internal surface of wall.	2,224.00	Sqm.	102.90	2,28,849.60	13.6.2
51	15 mm cement plaster of mix 1:6 (1 cement : 6 fine sand) on external surface of wall.	1,360.00	Sqm.	78.55	1,06,828.00	13.2.2
52	15mm cement plaster 1:4 (1cement : 4fine sand) on the rough side of chajja.	77.00	Sqm.	90.35	6,956.95	13.2.1
53	6mm cement plaster 1:3 (1cement : 3fine sand) to ceiling.	755.00	Sqm.	62.15	46,923.25	13.16.1
54	Finishing walls with water proofing cement paint of required shade : New work (Two of more coats applied @ 3.84 kg/10sqm.)	1,360.00	Sqm.	30.80	41,888.00	13.44.1
55	Distemping with dry distemper of approved brand and manufacture (two or more coats) and of required shade on new work, over and including priming coat of whitening to give an even shade.	2,979.00	Sqm.	26.30	78,347.70	13.40
56	Applying priming coat : With ready mixed pink or grey primer of approved brand and manufacture on wood work (hard and soft wood).	307.00	Sqm.	16.55	5,080.85	13.50.1
57	Applying priming coat : With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron / steel works.	159.00	Sqm.	12.65	2,011.35	13.50.3
58	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work : 100 mm diameter pipes.	500.00	Metre	16.35	8,175.00	13.56.1
59	Providing and applying plaster of paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	2,979.00	Sqm.	47.20	1,40,608.80	13.26
60	Applying one coat of cement primer of approved brand and manufacture on wall surface : Cement primer.	2,979.00	Sqm.	17.20	51,238.80	13.43.1
	SUB TOTAL :				7,16,908.30	
XI.	ROOFING					
61	Painting top of roofs with bitumen of approved quality at 17kg per 10sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete with residual type petoleum bitumen of penetration 80/100.	403.00	Sqm.	63.00	25,389.00	12.15.1
62	Providing and laying pressed clay tiles (as per approved pattern 20mm nominal thickness and of approved size) on roofs jointed with cement mortar 1:4 (1cement : 4coarse sand) mixed with 2% intergal water proofing compound laid over a bed of 20mm thick cement mortar 1:4 (1cement : 4coarse sand) and finished neat complete.	403.00	Sqm.	390.60	1,57,411.80	12.20
63	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diametre and weighing not less than 440 grams.	15.00	Each	23.40	351.00	12.44
64	Providing gola 75x75 mm in cement concrete 1:2:4 (I cement : 2 Coarse sand : 4 stone aggregate 10 mm and down gauge) including finishing with cement mortar 1:3 (1 cement: 3 fine sand) as per standard design. a) in 75X75 mm deep chase	348.00	Metre	67.35	23,437.80	12.21.1
	SUB TOTAL :				2,06,589.60	
XII.	INTERNAL WATER SUPPLY					
65	Cutting holes upto 40 x 40 cm in walls including making good the same.					
	i) With FPS bricks	4.00	Nos.	104.39	417.56	n.s.
66	Providing and fixing GI pipes complete with GI fittings including trenching and refilling etc. (Internal) a) 25 mm dia. nominal bore. b) 32 mm dia. nominal bore.	40.00 10.00	Metre Metre	179.65 226.10	7,186.00 2,261.00	18.10.3 18.10.4
67	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (internal work) - Concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall. 15 mm dia. nominal bore.	1.50	Metre	156.85	235.28	18.12.3
68	Making connection of G.I. Distribution branch with G.I. Main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete. 25 to 40 mm nominal bore.	54.00	Each	166.05	8,966.70	18.13.1
69	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end). a) 25 mm dia. nominal bore. b) 32 mm dia. nominal bore.	32.00 3.00	Each Each	285.50 358.00	9,136.00 1,074.00	18.17.1 18.17.2
70	Providing and fixing uplasticised PVC connection pipe with brass unions. (15 mm nominal bore) 45 cm length.	10.00	Each	44.75	447.50	18.21.2.1
71	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 (15 mm nominal bore)	40.00	Each	207.00	8,280.00	18.49.1
72	Providing and fixing C.P. brass angle valve for basin mixer and gyser points of approved quality conforming to IS : 8931 (15 mm nominal bore)	10.00	Each	347.65	3,476.50	18.53.1

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1	2	3.00	4	5	6	7
73	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS : 8931. 15mm nominal bore.	10.00	Each	262.55	2,625.50	18.52.1
74	Providing and fixing C.P. brass shower ross with 15 or 20mm inlet. 100mm dia.	6.00	Each	40.40	242.40	18.22.1
SUB TOTAL :					44,348.44	
XIII. INTERNAL SANITARY INSTALLATIONS						
75	Providing and fixing water closet squatted pan (W.C. pan) with 100mm sand cast Iron P or S trap, 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. (White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral tyne foot rests)	8.00	Each	2,304.65	18,437.20	17.1.1
76	Providing and fixing wash basin with C.I.brackets, 15mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : (Wash basin size 630 x 450 mm with a single 15 mm C.P. brass pillar taps)	7.00	Each	1,201.70	8,411.90	17.7.2
77	Providing and fixing stainless steel A ISI 304 (18/8) kitchen sink as per IS : 13983 with C.I brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting & making good the walls wherever required:				-	
	a) Kitchen sink without drain board.- 610 x 510mm bowl depth 200mm.	1.00	Each	3,439.20	3,439.20	17.10.2.1
78	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing. (Rectangular shape 453x357mm)	7.00	Each	465.10	3,255.70	17.32.2
79	Providing and fixing unplasticised PVC connection pipe with brass unions. (45 cm length) (15 mm nominal bore)	28.00	Each	44.75	1,253.00	18.21.2.1
80	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40mm long screws, rawl plugs etc., complete.	4.00	Each	218.80	875.20	17.33
81	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. - Semi rigid pipe (32 mm dia)	8.00	Each	42.15	337.20	17.28.1.1.
82	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors for 100 mm inlet and 100 mm outlet. (Sand Cast iron S&S as per IS : 3989)	8.00	Each	544.30	4,354.40	17.60.1.1
83	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with C.P brass screws with concealed fitting arangement of approved quality and colour. 600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm. weighing not less than 190gms.]	16.00	Each	329.50	5,272.00	17.73.2
84	Providing and fixing soil, waste and vent pipes.				-	
	a) 110mm dia. (Centrifugally cast (spun) iron S&S pipe as per IS : 3989)	44.00	Metre	730.40	32,137.60	17.35.1.2
	b) 75mm dia. (Centrifugally cast (spun) iron S&S pipe as per IS : 3989)	37.00	Metre	629.85	23,304.45	17.35.2.2
85	Providing and filling the joints with spun yarn cement slurry and cement mortar 1:2 (1cement : 2 fine sand) in S.C.I. / C.I. pipes.				-	
	a) 75mm dia.	4.00	Each	25.30	101.20	17.36.1
	b) 110mm dia.	1.00	Each	29.80	29.80	17.36.2
86	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				-	
	a) 100 x 100 x 100mm Sand cast iron S&S as per IS : 1729.	5.00	Each	374.60	1,873.00	17.43.1.1
	b) 100 x 100 x 100mm Sand cast iron S&S as per IS : 1729.	5.00	Each	250.65	1,253.25	17.44.2.1
87	Providing and fixing plain bend of required degree. 100 mm Dia.				-	
	a) 110mm dia. Sand cast iron S&S as per IS : 1729.	6.00	Each	222.45	1,334.70	17.39.1.1
	b) 75mm dia. Sand cast iron S&S as per IS : 1729.	15.00	Each	175.15	2,627.25	17.39.2.1
88	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter.				-	
	a) 110 mm	22.00	Each	126.50	2,783.00	17.58.1
	b) 75 mm	20.00	Each	107.80	2,156.00	17.58.2
89	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.				-	
	a) For 110 mm dia. pipe	12.00	Each	65.35	784.20	17.37.1
	b) For 75 mm dia. pipe	40.00	Each	63.00	2,520.00	17.37.2
90	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete. 100 x 100 x 100 x 100mm. Sand cast iron S&S as per IS : 1729.	10.00	Each	513.85	5,138.50	17.41.1.1

Sl. No.	Description of Items	Quantity	Unit	Rate (CPWD DSR-07)	Amt (Rs.)	CPWD DSR-07 Item Code No.
1	2	3.00	4	5	6	7
91	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300 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) (With F.P.S. bricks class designation 75).	4.00	Each	961.95	3,847.80	19.4.2.1
92	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 (110 mm diameter).	44.00	Metre	105.90	4,659.60	19.1.1
93	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 as per standard design : (100 mm diameter S.W. pipe)	44.00	Metre	331.20	14,572.80	19.2.1
SUB TOTAL :					1,44,758.95	
XIV	WATER PROOFING					
94	Providing and lying 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 @ 0.253kg/sqm. b) laying second layer of fibre glass cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of surry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse 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 30 cm on parapet wall and tucked into groove in parapet around. d) 4th and final layer of brick tiling with cement mortar wich will be paid for separetaly for the purpose of measurement the entire treted surface will be measured	429.00	Sqm.	237.50	1,01,887.50	22.6
SUB TOTAL :					1,01,887.50	
2	NON-SCHEDULE ITEM					
2	Drilling and injecting chemical emulsion (Chloropyrinhos/Lindane emulsifiable concentrate of 20% with 1% concentration) for PRE-CONSTRUCTIONAL ANTI-TERMITE treatment and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits etc. complete as per CPWD Specifications. (Plinth area of the building at ground floor only shall be measured for payment.). Work shall be carried out through an approved specialized agency and guarantee shall be given for 10 years.	420.00	Sqm.	110.00	46,200.00	Non-Schedule
3	Supply and filling in plinth with medium sand under floors including watering, ramming, consolidating and dressing complete.	92.00	Cum.	340.00	31,280.00	Non-Schedule
SUB TOTAL :					77,480.00	

**DETAIL ESTIMATE FOR ELECTRICAL WORKS FOR PROPOSED
BOYS' HOSTEL AT RAU-PUSA**

BASED ON PRESENT MARKET RATE

1	Internal Electrical Works	Rs.	3,29,900.00
2	External Electrical Works	Rs.	10,000.00
	Total	Rs.	3,39,900.00

DETAIL ESTIMATE FOR ELECTRICAL WORKS FOR PROPOSED BOYS' HOSTEL AT RAU-PUSA**Boys' Hostel Project, Pusa****Based on present Market Rate**

Sl. no.	Description	Unit	Quantity	Rate (CPWD DSR-07)	Amount (INR)
1	2	3	4	5	6
1	Supply, Installation, Testing, Commissioning of Main liness. Wiring of sub main / main wiring with following size of PVC insulated multistranded copper wire as per IS:694, 1.1 KV grade in RPVC medium grade conduit as per IS:9537 part III complete with heavy duty RPVC conduit accessories like circuit boxes bends etc. The copncuit work should include cutting & refilling the chases etc. as required including termination .				
	2 x 2.5 sq.mm + 1 x 1.5 sq.mm	Mtrs.	25	100.00	2,500.00
	2 x 6 sq.mm + 1 x 1.5 sq.mm	Mtrs.	10	200.00	2,000.00
2	Supply, Installation, Testing, Commissioning of distribution boards. 18 swg CRCA sheet steel clad dust & vermine proof wall mounting type double door. IP 52 panel having following filling equipments fitted in DIN channel complete with accessories like neutral bus & necessary connection :- INCOMER - 1 no. 40 amps, DP isolator (MCB) OUTGOINGS - 18 nos. 10 & 16 amps SP MCB 9.0 KA				
		Set	2	2,500.00	5,000.00
3	Earthing Supply & installation of 3.5 mtrs. long GI perforated earth complete with charcoal & salt as required for neutral earthing with 50 mm dia 3.5 long top & threaded, perforated GI electride buried to an average depth of 4.7 mtrs. long below finished ground level, having homogeneous layers of charcoal dust & salt upto the full height as per IS 3043 code of practice, including provision of connection of earth lead including all accessories.				
		Sets	6	4,500.00	27,000.00
4	Points Wiring Wiring of light / fan / 6 amps plug point with 1.5 sq.m FRPVC insulated multistranded copper wire as per IS:694 1.1 KV grade in RPVC medium grade condustor as IS:9537 part III including 1.5 sq.mm copper wire as earth wire complete with heavy duty FR regid PVC conduit accessories like circular boxes / bends etc. complete with modular type switches & including fixing of light / fan etc. The conduit work should include cutting & refilling the chases etc. as required & inclusive of circuit wiring from sub distribution boards.				
a)	Light points	Nos.	220	700.00	1,54,000.00
b)	16 amps plug point	Nos.	2	800.00	1,600.00
c)	10 amps plug point	Nos.	160	700.00	1,12,000.00
d)	Exhaust fan point	Nos.	2	700.00	1,400.00
5	Wiring of light 6 amps plug point for stair case & roof with 1.5 sq.m FRPVC insulated multistranded copper wire as per IS:694 1.1 KV grade in RPVC medium grade condustor as IS:9537 part III including 1.5 sq.mm copper wire as earth wire complete with heavy duty FR regid PVC conduit accessories like circular boxes / bends etc. complete with modular type switches & including fixing of light / fan etc. The conduit work shpuld include cutting & refilling the chases etc. as required & inclusive of circuit wiring from sub distribution boards.				
a)	Light points 1 no per stair case & 2 nos. per roof	Nos	4	700.00	2,800.00
6	Supply, Installation, Testing, Commissioning of telephone JB's at ground floor entrance of each blocks. 20 pair krone JB				
		Nos.	2	10,000.00	20,000.00
7	Supply, Installation, Testing, Commissioning of 2 pair telephone cables through RPVC conduits on trays / walls as per site requirement to 64 flats.				
		Mtrs.	40	40.00	1,600.00
				Total Rs.	3,29,900.00

DETAIL ESTIMATE FOR FIRE WATER FOR PROPOSED BOYS' HOSTEL AT RAU-PUSA				
Based on present Market Rate				
Sl. no.	Description	Unit/Qty	Rate (INR)	Amount (INR)
A	2	3	4	5
1	Elect. Motor Driven Fire water Pump of Capacity - 15M3 /Hr. at 12M Head, RPM-1500 along with base plate, coupling, coupling guard & Foundation bolt.	1Set	20,000.00	20,000.00
2	M. S. ERW Pipes to IS:1239 (Patr-1) Md. Gr			
(a)	80 NB	12Mtrs.	358.00	4,296.00
(b)	50 NB	15Mtrs.	230.00	3,450.00
3	CI Gate Valves to IS:14846 PN1.6			
(a)	80 NB	2 Nos.	6,229.00	12,458.00
(b)	50 NB	2 Nos.	4,960.00	9,920.00
4	Non-return Valve 80 NB	1 No.	5,100.00	5,100.00
5	Pressure guage(6" dial-0-50 kg/cm2)	1 No.	200.00	200.00
6	Pressure Switch-including ball valve & siphon (15mm BSP)	1 No.	150.00	150.00
7	Power Cable(PVC insulated, 3x25mm2) with earthing cable	1 Lots.	12,000.00	12,000.00
8	RRL Fire Hose C/W coupling to IS:636 & 9037.5M long	4 Nos.	39.00	156.00
9	House cabinet	4 Nos.	1,950.00	7,800.00
B	CONVENTIONAL FIRE DETECTION AND ALARM SYSTEM			
1	Main fire Alarm Panel	1 Set.	2,000.00	2,000.00
2	Conventional Smoke Detector	19 Nos.	900.00	17,100.00
3	Fire Extinguisher	4 Nos.	2,500.00	10,000.00
				1,04,630.00
(Rupees one lakh nine thousand one hundred thirty only)				

**DETAIL ESTIMATE FOR LAND SCAPING WORKS FOR PROPOSED BOYS' HOSTEL AT RAU-PUSA
BASED ON DELHI SCHEDULE OF RATES 2007**

Sl. No.	Description of Items	Quantity	Unit	Rate (CPWD DSR-2007)	Amount (Rs.)	CPWD DSR-2007 Item Code No.
1	2	3.00	4	5	6	7
SCHEDULE ITEM:						
1	Trenching in ordinary soil upto a depth of 60cm including removal and stacking of serviceable materials and then disposing off by spreading and neatly levelling within a lead of 50m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	51.00	Cum	16.95	864.45	23.1
2	Supplying and stacking of good earth at site including royalty and carriage upto 1 km (earth measured in stacks will be reduced by 20% for payment).	13.00	Cum	144.05	1,872.65	23.2
3	Supplying and stacking of sludge at site including royalty and carriage upto 1 km (earth measured instacks will be reduced by 8% for payment).	5.00	Cum	136.85	684.25	23.3
4	Supply and stacking at site dump manure from approved source, including carriage upto 1 km (manure measured in stacks will be reduced by 8% for payment).					
	i) Screened through sieve of IS designation 20mm.	1.30	Cum	82.90	107.77	23.4.1
	ii) Screened through sieve of IS designation 16mm.	0.80	Cum	90.75	72.60	23.4.2
	iii) Screened through sieve of IS designation 4.75mm.	1.00	Cum	97.05	97.05	23.4.3
5	Rough dressing the trenched ground including breaking clods.	1.00	100 Sqm.	33.05	33.05	23.5
6	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	1.00	100 Sqm.	106.85	106.85	23.6
7	Fine dressing the ground.	1.00	100 Sqm.	80.20	80.20	23.7
8	Spreading of sludge, dump manure or/and good earth in required thickness (Cost of sludge, dump manure or/and goodearth to be paid separately).	5.00	Cum	11.60	58.00	23.8
9	Mixing earhand sludge or manure in proportion specified or directed.	10.00	Cum	7.85	78.50	23.9
10	Grassing with 'Doob' grass including watering and maintainance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing including supplying good earth if needed (the good earth shall be paid for separately).	1.00	100 Sqm.	121.00	121.00	23.10.1
11	Digging holes in ordinary soil and refilling the same with excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction be 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Holes 1.2m dia and 1.2m deep.	6.00	Each	146.65	879.90	23.14.1
12	Providing and fixing MS flat iron tree guard 60cm dia and 1.2m height above ground level formed of 4 nos. 25 x 6mm and 8 nos. 25 x 3mm vertical MS flats rivetted to 3 nos. 25 x 6mm MS flat iron rings in two halves, bolted together with 8mm dia and 30mm long bolts including painting two coats with paint of approved brabd and manufacturer over a coat of priming, complete in all respects.	6.00	Each	1,592.10	9,552.60	23.16
13	Edging with bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading neatly surplus earth within a lead of 50m 75 class designation FPS bricks.	24.00	metre	15.05	361.20	23.19.1.1
14	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and leveling (Cost of supplying earth and sludge or manure and mixing excluded).	1.00	Cum	3.95	3.95	23.20
TOTAL (SCHEDULE ITEM)				Rs.	14,974.02	

**DETAIL ESTIMATE FOR ROAD WORKS FOR PROPOSED BOYS' HOSTEL AT RAU-PUSA
BASED ON MARKET RATE**

Sl. No.	Description of Items	Quantity	Unit	Rate(CPW D DSR- 2007)	Amount (Rs.)
1	2	3	4	5	6
1	Single Brick flat soling with picked jhama bricks including ramming and dressing bed to proper level and filling joints with powdered earth or local sand all complete.	495	sqm.	125.00	61,875.00
	ALL TOTAL			Rs.	61,875.00
	Say			Rs.	61,875.00

**DETAIL ESTIMATE FOR DRAIN WORKS FOR PROPOSED BOYS' HOSTEL AT RAU-PUSA
BASED ON DELHI SCHEDULE OF RATES 2007**

Sl. No.	Description of Items	Quantity	Unit	Rate(CPW D DSR-2007)	Amount (Rs.)	CPWD DSR-2007 Item Code No.
1	2	3	4	5	6	7
SCHEDULE ITEMS						
1	Earth work excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm. on plan) including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m.					
	a) All kinds of soil.	28.26	Cum	103.40	2,922.08	2.8.1
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	3.65	Cum	45.70	166.58	2.25
3	Providing and laying in position cement concrete 1 : 3 : 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) excluding the cost of centering and shuttering - All work up to plinth level.	5.00	Cum	2,713.05	13,565.24	4.1.6
4	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in : Cement mortar 1 : 6 (1 cement : 6 coarse sand).	6.12	litre	2,121.75	12,985.11	6.1.2
5	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.					
	a) 40mm thick with 20mm nominal size stone aggregate.	5.00	Sqm.	192.95	964.75	11.3.1
6	12mm cement plaster 1:4 (1cement : 4fine sand)	65.12	Sqm.	77.55	5,049.67	13.1.1
TOTAL OF SCHEDULE ITEMS				Rs.	35,653.43	
NON-SCHEDULE ITEM						
7	Single Brick flat soling with picked jhama bricks including ramming and dressing bed to proper level and filling joints with powdered earth or local sand all complete.	7.00	Sqm.	125.00	875.00	Non-Schedule
Total				Rs.	875.00	