

BOQ

Name of Work:- Extension and renovation of the existing bathroom to create separate bathrooms for ladies and gents for the control room of 132 kV GSS, Dispur, AEGCL.

Name of Bidder:-

Sl. No.	Description of Item	Qty	Unit	Rate	Amount
(A)	CIVIL WORKS				
1	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. 15.7.4 In cement mortar Partition wall External wall				
	2 x 0.50 x 2.10 x 0.125 = 0.26				
	1 x 3.40 x 3.20 x 0.125 = 1.36				
	Total = 1.62	1.62	cum		
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. 2.6.1 All kinds of soil Footing Tie beam				
	2 x 0.60 x 0.60 x 0.90 = 0.65				
	1 x 6.40 x 0.20 x 0.20 = 0.26				
	Total = 0.91	0.91	cum		
3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. bathroom area				
	1 x 3.40 x 1.50 x 0.60 = 3.06				
	Total = 3.06	3.06	cum		
4	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with Jamuna sand, with common burnt clay non modular bricks. Footing Tie beam Floor area				
	2 x 0.60 x 0.60 = 0.72				
	1 x 6.40 x 0.20 = 1.28				
	1 x 3.40 x 1.50 = 5.10				
	Total = 7.10	7.10	sqm		
5	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.1 Foundations, footings, bases of columns, etc. for mass concrete Footing Tie beam				
	2 x 4 x 0.60 x 0.10 = 0.48				
	2 x 6.40 x 0.20 = 2.56				
	Total = 3.04	3.04	sqm		
	5.9.6 Columns, Pillars, Piers, Abutments, Posts and Struts Column				
	2 x 4 x 0.125 x 3.50 = 3.50				

	Lintel	1	x	2	x	12.50	x	0.13	=	3.13			
								Total	=	6.63	6.63	sqm	
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.												
	5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more												
	Footing	2	x	2	x	5	x	0.60	x@	0.39	=	4.68	
	Column			2	x	4	x	3.50	x@	0.89	=	24.92	
	Stirrup			2	x	23	x	0.50	x@	0.39	=	8.97	
	Tie Beam			1	x	4	x	6.40	x@	0.89	=	22.78	
	Stirrup			1	x	43	x	0.90	x@	0.39	=	15.09	
	Lintel			1	x	4	x	12.50	x@	0.62	=	31.00	
	Stirrup			1	x	83	x	0.50	x@	0.22	=	9.13	
								Total	=	116.57	116.57	Kg	
7	Reinforced cement concrete Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).												
	Footing			2	x	0.60	x	0.60	x	0.10	=	0.07	
	Column			2	x	0.125	x	0.125	x	3.50	=	0.11	
	Tie Beam			1	x	0.20	x	0.20	x	6.40	=	0.26	
	Lintel			1	x	0.125	x	0.125	x	12.50	=	0.20	
								Total	=	0.64	0.64	cum	
8	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: 6.1.1 Cement mortar 1:4 (1 cement : 4 coarse sand)												
		1	x	3.40	x	0.60	x	0.23	=	0.47			
		3	x	1.50	x	0.60	x	0.23	=	0.62			
								Total	=	1.09	1.09	cum	
9	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in : 6.12.2 cement mortar 1:4 (1 cement : 4 coarse sand)												
				1	x	3.40	x	3.20	=	10.88			
				1	x	1.50	x	3.20	=	4.80			
				2	x	2.10	x	3.20	=	13.44			
				1	x	3.40	x	2.90	=	9.86			
	Less door			2	x	0.80	x	2.10	=	-3.36			
				2	x	0.60	x	0.45	=	-0.54			
								Total	=	35.08	35.08	sqm	
10	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix : 13.8.2 1:4 (1 cement: 4 fine sand)												
	Plinth Wall			1	x	3.40	x	0.60	=	2.04			
				3	x	1.50	x	0.60	=	2.70			

	Main Wall	2	x	35.080	=	70.16				
						74.90	74.90	sqm		
11	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.					70.16	70.16	sqm		
12	Finishing walls with Acrylic Smooth exterior paint of required shade : 13.4.6.New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)					70.16	70.16	sqm		
14	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	1	x	1.50	x	3.40	=	5.10		
						Total	=	5.100	5.100	sqm
15	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. 11.41A.3 Glazed Vitrified tiles Matt/Antiskid finish of size 11.41A.3.1 Size of Tile 600 x 600 mm	1	x	1.65	x	1.80	=	2.97		
		1	x	3.30	x	3.40	=	11.22		
							=	14.19	14.19	sqm
16	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, 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 : 3coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	2	x	3.40	x	1.80	=	12.24		
		2	x	2.10	x	1.80	=	7.56		
	less door(-)	2	x	0.80	x	2.10	=	-3.36		
							=	16.44	16.44	sqm
17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	1	x	6.40	x	0.60	=	3.84		
							=	3.84	3.84	sqm

9	<p>Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, 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 manufacturer's specification and direction of Engineer-in-Charge.</p>	<p>4 x 2.00 = 8.00 2 x 0.80 = 1.60 Total = 9.60</p>	9.60	RM		
8	<p>25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762 mm X 25 mm or less as per requirement with an average wall thickness of 1 mm (± 0.3 mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm (± 0.1 mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25 mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places</p>	<p>2 x 0.80 x 2.10 = 3.36 Total = 3.36</p>	3.36	sqm		
18	<p>Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes <u>Strut(25 x 25 x 3.2) mm square hollow section</u></p>	<p>1 x 4.00 x@ 1.98 = 7.92 2 x 1.50 x@ 1.98 = 5.94 6 x 1.80 x@ 1.98 = 20.34 Total = 34.20</p>	34.20	Kg		
19	<p>Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa 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 during 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 55 mm) with EPDM seal, 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.</p>	<p>1 x 4.00 x 1.80 = 7.20 = 7.20</p>	7.20	sqm		
20	<p>Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :</p> <p>17.4.1 One urinal basin with 5 litre white P.V.C. automatic flushing cistern</p>	<p>1</p>	1	Each		

21	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
	17.3.1 W.C. pan with ISI marked white solid plastic seat and lid	2	2	Each	
22	Providing and fixing wash basin with C.I. brackets, 15 mm 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:				
	17.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	2	2	Each	
23	Providing and fixing brass bib cock of approved quality :				
	18.15.2 20 mm nominal bore	= 6	6	Each	
24	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.				
		= 2	2	Each	
25	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.				
	17.73.1 450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms	= 2	2	Each	
26	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
	18.52.1 15 mm nominal bore	= 2	2	Each	
27	Providing and fixing PTMT grating of approved quality and colour.				
	18.58.2 Rectangular type with openable circular lid				
	18.58.2.1 150 mm nominal size square 100 mm diameter of the inner hinged round grating		2	Each	
28	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :				
	18.22.2 150 mm diameter	= 2	2	Each	
29	CPVC PIPES				
	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
	Internal work - Exposed on wall				
	18.7.3 25 mm nominal dia Pipes	= 20.00	20.00	Rm.	
	18.7.2 20 mm nominal dia Pipes	= 10.00			
	Total	= 10.00	10.00	Rm.	

30	<p>Wiring for drawing sub-main line with 2x1.5 sq mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) in surface flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) system, including connection as required complete as directed and specified by the Deptt.</p> <p>1.7.1.) With 2 x 1.5 sq. mm. cable in flat 19 mm ISI marked casing 'n' capping system,</p> <p style="text-align: right;">= 15</p>	15	Rm.		
31	<p>Wiring for light/ fan/ call bell point with 2x1.5 sq mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) with flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including 6 Amp flush type switch/ bell push (Anchor Penta/Gold medal /Kolor kany.Kom/ Havells or equivalent make as approved by the Deptt.) GI/ MS switch board (ISI marked) half conceal on wall with phenolic laminated sheet cover ,ceiling rose (Anchor/Gold medal /Kolor kany.Kom / Havells or equivalent make as approved by the Deptt.) etc. complete as directed and specified by the Deptt.</p> <p>1.1.1.) Short point up to 3.00 metre. length.</p> <p style="text-align: right;">= 4</p>	4	Each		
32	<p>Wiring for 5/6 pin 16 Amps power plug point with 4 sq. mm. P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) with flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including providing and fixing 5/6 pin 16 Amps flush type socket outlets and 16 Amps flush type switch (Anchor penta /Gold medal /Kolor kany.Kom/Havells or equivalent make as approved by the Deptt.),GI/ MS switch board (I.S.I. marked) with phenolic laminated sheet cover earth continuity with 2.5 sq. mm cable to the 3rd pin of the socket as required complete.</p> <p>1.3.1.) Short point up to 3.00 metre. length.</p>	2	Each		
33	<p>Supplying with fitting & fixing T-5 luminaries complete with all accessories such as ballast, starter, lamp etc directly on wall/ceiling including connection cable as directed by the Deptt. with 1.5 sqm. PVC insulated S.C. copper conductor as required as directed by the Deptt.</p> <p>ECBC.3.2.1. Sleek Strip type Decorative T5 luminaries with ABS end caps and Electronic ballast with 1 X 28 W T5 lamp(Crompton Greaves make Model- T5SG1128EB / B OR T5SG1128EB / O CG SLIM GOLD or equivalent (Equivalent will be selected by the deptt considering the mother items rate) (equivalent PHILIPS/ WIPRO/ BAJAJ/ Havells/ HPL/ SOLAR/ JAQUAR make).</p> <p style="text-align: right;">= 2</p>	2	Each		
34	<p>Supplying including fitting fixing of following A.C. Exhaust fan in the existing hole on the wall of following sweeps with making necessary connection as approved by the Deptt.)as required complete and as directed by the Department.</p> <p>27.2.1.2.) Power Flow 225 mm sweep (ORIENT make)</p> <p style="text-align: right;">= 2</p>	2	Each		
35	<p>Supplying, fitting, fixing and painting where necessary (one coat primer and two coats of paint) M/F Suspended Ceiling which includes G.I. Ceiling section of 0.55mm thickness having knurled web of 51.5mm and two equal flanges of 26mm each with lips of 10.5mm are then 12.5mm thick ceiling</p> <p style="text-align: right;">1 x 3.40 x 1.50 = 5.10</p> <p style="text-align: right;">Total = 5.100</p>	5.10	sqm		

36	<p>Providing, fitting and fixing anodised aluminium sliding windows and ventilators of standard sections without horizontal glazing bars, joints mitred and welded (manufactured to relevant IS specifications) and providing and fixing handles, angle cleat, rubber gasket, roller, bolting device, locking arrangements, screws etc as required complete as specified and directed for all levels.</p> <p>(a) 2 Track sliding window (iv) 5 mm clear glass ventilator</p> $2 \quad \times \quad 0.60 \quad \times \quad 0.45 \quad = \quad 0.54$ $\text{Total} \quad = \quad 0.54$	0.54	sqm		
37	<p>Providing drain with brick work in cement mortar in proportion 1:5 with half brick thick side walls and 100mm thick C.C (1:3:6) base over one brick flat soling including 15mm thick cement plastering in prop. 1:3 finished with a floating coat of cement slurry as directed with necessary shattering for sides and earth work in excavation of foundation trenches and refilling the sides after completion of work etc. as specified.</p> <p>i). 300mm wide and average 150mm deep with bed slope 1 in 150 with initial depth of 100mm.</p> $1 \quad \times \quad 7.00 \quad = \quad 7.00$ 7.00	7.00	Rm.		
38	<p>Supplying fixing PVC pipes of 6 kg/m² 9Supreme/Prince) or other I.S.I approved.....</p> <p>(a) In exposed or in trenches. (ii) 110 mm dia..</p> $= \quad 9.00$	9.00	Rm.		
	<p>vent pipe..</p> 4.00	4.00	Rm.		
39	<p>Supplying fitting & fixing 87.5 degree PVC bend of supreme/panel or other I.S.I approved.</p> <p>(i) 110 mm dia.....</p> $= \quad 6$	6	Each		
40	<p>Supplying fitting & fixing PVC reducing Tee of Supreme/Prince or other I.S.I11.0 x 75 mm.....</p> $= \quad 2$	2	Each		
41	<p>Providing fitting & fixing PVC cowl of I.S.I make...</p> <p>(iv) 75 mm dia P.V.C cowl.....</p> $= \quad 2$	2	Each		

Total =

Adding 18 % GST =

Grand Total =

Say Rs=