

**PRIME MINISTER'S OFFICE  
ASHRAYAN-2 PROJECT**

Financial Year: 2015-16

Name of the Scheme : **Detailed Estimate of Latrine for 5 Unit CGI Sheet Barrack house.**

SL	Item Code	Description of Work	Unit	Location / Component	Length	Width	Height / Depth	Area / Volume	No of	Total Qty of Works	Unit Rate	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	5.02.01	Earthwork in excavation of foundation trenches, including layout, by excavating earth to the lines, grades and elevation as shown in the drawing providing center lines, local bench mark pillars, fixing bamboo spikes and marking layout with chalk powder filling baskets, carrying and disposing of all excavated materials at a safe distance designated by the E-I-C in all types of soils except rocky, gravelly, slushy or organic soil, leveling, ramming, dressing and preparing the base, etc. all complete for an initial excavation depth of 2m and an initial lead not exceeding 20m, including arranging all necessary tools and equipment at work site, etc. complete as per direction of the E-I-C.	cum	Wall	8.536	0.250	0.300	0.640	1.00	0.640		
										<b>0.640</b>	<b>125.53</b>	<b>80.34</b>
2.	5.02.02	Sand filling in foundation trenches and inside plinth with sand (minimum FM 0.50) in 150mm layers in/c leveling, watering and consolidating each layer up to finished level etc. all complete as per direction of the E-I-C. Dry density after compaction shall not be less than 95% of MDD (STD).	cum	Wall	8.536	0.250	0.075	0.160	1.00	0.160		
				Floor	2.895	1.067	0.300	0.927	1.00	0.927		
										<b>1.087</b>	<b>681.88</b>	<b>741.20</b>
3.	5.03.01	Single layer brick flat soling with 1st class or picked bricks, true to level, camber/super elevation and grade including carrying bricks, filling the interstices tightly with sand of minimum FM 0.80, etc. all complete as per direction of the E-I-C.	sqm	Floor	2.895	1.067		3.089	1.00	3.089		
										<b>3.089</b>	<b>374.91</b>	<b>1158.10</b>
4.	5.03.04.01	Mass concrete work in foundation or floor with Portland Composite Cement (CEM II/AM, 42.5N), sand (minimum FM 1.20) and 20mm down well graded 1st class/picked brick chips (LAA value not exceeding 38), including shuttering, mixing by concrete mixer machine, casting, laying compacting with mechanical vibrator machine and curing for the requisite period breaking bricks into chips etc. all complete as per direction of the E-I-C. Cylinder crushing strength of concrete should not be less than 10.5Mpa at 28 days of curing (suggested mix proportion 1:3:6). Additional quantity of cement to be added if required to attain the strength at the contractors own cost.	cum	Floor	2.895	1.067	0.075	0.232	1.00	0.232		
				Hole for post	0.250	0.250	0.250	0.016	6.00	0.096		
				Post	0.150	0.150	0.250	0.006	6.00 (-)	0.036		
		Mass concrete in foundation (1:3:6) with Portland Composite Cement (CEM II/AM, 42.5N), sand (minimum FM 1.20) and 20mm down well graded 1st class/picked brick chips.								<b>0.292</b>	<b>7064.57</b>	<b>2062.85</b>
5.	5.05.01.03.1	RCC:1:2:4, 17MPa, Brick Chips (BC): Reinforced cement concrete works with minimum cement content relates to mix ratio (tentative 1:2:4) and maximum water cement ratio 0.45 having minimum required average strength, $f_{cr} = 24$ Mpa and satisfied a specified compressive strength $f_c = 17$ Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and Portland Composite Cement conforming to BDS EN 197-1 : 2003 CEM-II 42.5N sand of	cum	Post	0.150	0.150	2.439	0.055	3.00	0.165		
				Post	0.150	0.150	2.134	0.048	3.00	0.144		
										<b>0.309</b>	<b>12790.20</b>	<b>3952.17</b>

minimum FM 1.8 and 20mm down well graded picked brick chips (LAA value not exceeding 38) conforming to ASTM C 33 and Aggregate Grading Appendix-3 LGED Schedule of Rates in/c breaking chips and screening through proper sieves, centering, shuttering in position, making shuttering fully leak proof & shuttering with plain 16 BWG steel sheet fitted over 38mm thick wooden plank panels and Standard size Bamboo Props suitably braced, placing of reinforcement in position, mixing the aggregates with standard mixer machine with hopper, fed by standard measuring boxes, maintaining allowable slump of 50mm (without plasticizer) & 75mm to 100mm (when plasticizer use), pouring, casting, compacting by mechanical vibrator machine and curing at least for 28 days, removing centering-shuttering after approved specified time period, i/c cost of additional testing charges of materials and cylinders required. Excluding the cost of reinforcement and its fabrication, welding, coupling, placing, binding etc. Additional quantity of cement and Plasticizer i.e. Water reducing chemical admixture of complying type A under ASTM C 494 to reduce mixing water required for normal workability and to maintain low water-cement (W/C) ratio (Doses of admixture to be fixed by the mix design as per instruction of Engineer) to be added if required to attain the strength at the contractor's own cost. etc. all complete as per direction and approval of the Engineer.  
In pedestal, column, capital lift wall and wall :  
Below Plinth Level and in Ground Floor

6. 5.06.01.01	Supplying and fabrication of M.S High strength Ribbed or deformed bar reinforcement conforming to BDS ISO 6935-2:2006 (or standard subsequently released from BSTI) of required size and length for all types of RCC work in/c straightening removing rusts, cleaning, cutting, hooking, bending, binding or tying with supply of 22 B.W.G. annealed binding wire double fold, placing in position in/c lapping, or welding wherever required as directed, anchoring to the adjoining members wherever necessary, spacing and securing them in position by proper size concrete cover blocks (1:1) supports, metal chairs, spacers, splices or laps etc. complete in/c cost of all materials, labour, local handling, cost includes necessary equipment and machinery, loading and unloading, transportation, all other necessary incidental charges including all leads and lifts etc. to complete the work as per specifications, design, drawings and direction of the E-I-C. (Undersize reinforcement will not be accepted under any circumstance. Measurement will be made based as length of bar on standard weight i.e. 77KN/m3 (BNBC Table 6.2.1) basis. Chairs, laps, Splice and separators will not be measures for payment. The cost of these remains inclusive in the unit rate). RB 300: Ribbed bar or Deformed bar produced and marked as per BDS ISO 6935-2:2006 with minimum yield strength, $f_y(ReH)=300$ MPa, but the actual yield strength based on mill tests dose not exceed $f_y$ by more than the 125 MPa and the ratio of actual ultimate strength, $f_u(Re)$ to actual tensile yield strength ( $f_y$ ) shall be at least 1.25 and minimum elongation after fracture (A565) & minimum total elongation and maximum force (Agt) is 17% and 2.5% respectively.	kg	10 mm dia main bar	2.439	0.616	1.502	12.00	18.024			
			Do	2.134	0.616	1.315	12.00	15.780			
			6 mm dia stirrup	0.405	0.222	0.090	96.00	8.640			
										<b>42.444</b>	<b>77.48</b>



3.07.04.01	Supplying and making seasoned wood works in frames of roof truss of required size with wall plates as per design in/c supplying, fabricating, hoisting, scaffolding, fitting and fixing in position with bolts and nuts for all floors etc. all complete as per direction of the E-I-C. (All sizes of wood are finished).	cum	Wall Plare	8.534	0.075	0.050	0.032	1.00	0.032			
			Rafter	1.829	0.050	0.050	0.005	2.00	0.010			
			Purline	3.660	0.050	0.025	0.005	4.00	0.020			
			Batten (Long)	3.048	0.050	0.025	0.004	3.00	0.012			
			Batten (Short)	1.219	0.050	0.025	0.002	12.00	0.024			
										<b>0.098</b>	<b>101859.22</b>	<b>9982.20</b>
8. 5.08.20	Supplying fitting and fixing steel door shutter with 18 BWG MS sheet/plain plate hinged to RCC columns reinforcement with 38mmx38mmx5mm MS Angle and 25mmx6mm flat bar stiffener etc. all complete as per drawing and direction of E-I-C.	sqm	Door	1.524	0.762		1.161	1.00	1.161			
										<b>1.161</b>	<b>3472.00</b>	<b>4030.99</b>
9. 5.09.01.01	Supplying, fitting and fixing 0.46mm (26 SWG) thick galvanized iron corrugated sheet (Bangladesh made)having minimum weight 63-65 kg per bundle (2'-6" width 70 - 72 rft long) roofing fitted and fixed on MS sections with 'J' hook or wooden purlins with screws, limpet washers, bitumen washers and putty etc. all complete as per direction of the E-I-C.	sqm	Roof	3.660	1.829		6.694	1.00	6.694			
			Fencing (long)	3.048	1.829		5.575	2.00	11.150			
			Fencing (Short)	1.219	1.829		2.230	4.00	8.920			
			Door	1.829	0.762		1.394	2.00 (-)	2.788			
			Open	1.829	1.219		2.230	1.00 (-)	2.230			
										<b>21.746</b>	<b>707.64</b>	<b>15388.34</b>
10. 7.01.01.01	Supplying, fitting and fixing Bangladesh pattern "BISF STANDARD" Long Pan (Model-314E, size 525mmx 295mmx 285mm, Bowl size-410mmx 225mm x 170mm or equivalent) with foot rest of vitreous China and preparing the base of pan with cement concrete (1:2:4) and wire net or rods including making holes wherever required and mending good the damages, etc. all complete as per direction of the E-I-C White [BISF STANDARD]	each	Pan				1.000	2.00	2.000			
								1.00	1.000			
										<b>3.000</b>	<b>1511.46</b>	<b>4534.38</b>
11. 7.08.01.05	Supplying 25mm to 200mm dia (inside) best quality uPVC pipes having specific gravity 1.35-1.45, and other physical, chemical, thermal, fire resistivity properties etc. as per BSTI approved manufacturer standards or ASTM, BS/ISO/IS standards fitted and fixed in position with sockets head and shoes, bends, clamps and nails etc. all complete in all floors as per direction of the E-I-C. Minimum inner dia 150mm and minimum wall thickness 4.5mm	m	Soil Pipe	4.000			4.000	2.00	8.000			
										<b>8.000</b>	<b>1058.36</b>	<b>8466.88</b>
12. 7.11.01.01	Construction of masonry inspection pit with 250 mm thick brick work in cement mortar (1:4) including necessary earth work side filling and one layer brick flat soling, 75 mm thick (1:3:6) base concrete for making invert channel and 12 mm thick (1:2) cement plaster with neat finishing up to a depth of 700 mm etc. all complete and as per direction of the E-I-C (minimum sand F.M. 1.2). Clear 450x450 mm and depth 600 to 675 mm average 525 mm for single 150 mm dia R.C.C pipes and 400 mm PVC pipe	each	IP				1.000	3.00	3.000			
										<b>3.000</b>	<b>3636.73</b>	<b>10910.19</b>

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7.11.06

Construction of soak or leaching pit including supplying and fitting of 760mm dia 38mm thick 305mm height RCC (1:2:4) ring with 3 layers of No. 10 BWG wire as reinforcement placing in position one above another at equal spacing, placing in position, filling interstices with local sand, placing pit, jointing with 1:6 sand-cement mortar, making hole to RCC ring for inlet pipe and vent pipe including all fittings and jointing including labour, site cleaning, all complete as per drawing and direction of E-I-C.

per Ring

1.000 28.00

28.000

28.000

321.99

9015.72

14.

Earth filling works

LS

388.00

388.00

TOTAL SCHEME AMOUNT:

73,999.93

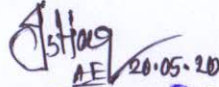
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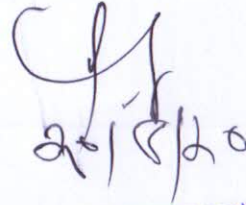
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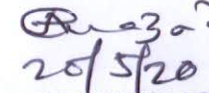
মোঃ জাহিদুল ইসলাম  
সহকারী প্রকৌশলী  
আশ্রয়ণ-২ প্রকল্প  
প্রধানমন্ত্রীর কার্যালয়



মোঃ ইসতিয়াক নাসির  
সহকারী প্রকৌশলী  
আশ্রয়ণ-২ প্রকল্প  
প্রধানমন্ত্রীর কার্যালয়।



মোঃ আনোয়ার রহমান  
উপ-প্রকল্প প্রকৌশলী  
আশ্রয়ণ-২ প্রকল্প  
প্রধানমন্ত্রী কার্যালয়



আবুল কালাম আজাদ  
প্রকল্প প্রকৌশলী  
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