

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****ESTIMATE REF NO : CTS/QE/01-08****NAME OF WORK : CONSTRUCTION OF ADDITIONAL ROOM FOR TYPE A 48 UNITS IN TOWNSHIP**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
15.2.1&2	01	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 m lead as per the direction of Engineer - in - charge.	1.200	CUM	226.90	272.28
15.3	02	Demolishing RCC work manually / by mechanical means including stacking of steel bars and disposal disposal of unserviceable material within 50 m lead as per direction of Engineer - in - charge.	15.600	CUM	537.55	8385.78
15.7.4	03	Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 m lead as per the direction of Engineer - in - charge. IN CEMENT MORTAR.	55.200	CUM	310.75	17153.40
15.9.2	04	Demolishing stone rubble masonry manually / by mechanical means in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 m lead as per direction of Engineer - in - charge.	0.240	CUM	370.75	88.98
15.12.1&2	05	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts, etc. complete and stacking within 50M lead	48.000	EACH	64.98	3119.04
15.26	06	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 m lead .	72.000	SQM	15.45	1112.40
15.27	07	Demolishing mud phaska in terracing and disposal of material within 50M lead	7.200	CU.M	137.90	992.88
15.42.1,2&3	08	Dismantling C.I.or asbestos rain water pipe with fittings and clamps	288.000	RM	11.80	3398.40

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		including stacking the material within 50M lead from 75mm to 150mm dia				
15.56	09	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50M lead	96.000	SQ.M	8.20	787.20
2.1.1	10	Earthwork in surface excavation not exceeding 30cm in depth but exceeding 1.5m in width as well as 10sqm on plan including disposal of excavated earth upto 50m and lift upto 1.5m, disposed soil to be levelled and neatly dressed in all kinds of soil.	144.000	SQ.M	20.74	2986.56
2.6.1	11	Earthwork in excavation over areas by mechanical means (Hydraulic excavator) / manual means (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed in all kinds of soil.	0.240	CU.M	101.85	24.42
2.7.1	12	Earthwork in excavation over areas by mechanical means (Hydraulic excavator) / manual means (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth , lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed in ordinary rock.	0.240	CU.M	152.60	36.60
2.8.1	13	Earthwork excavation in foundation trenches or drains by mechanical means (Hydraulic excavator) / manual means (not exceeding 1.5m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a	108.000	CU.M	103.40	11167.20

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					RS	P	RS	P
		lead of 50m in all kinds of soil.						
2.9.1	14	Excavation work in foundation trenches or drains by mechanical means (Hydraulic excavator) / manual means not exceeding 1.5m in width or 10 sqm on plan including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50m in ordinary rock.	0.240	CU.M	162.65		39.06	
2.27	15	Extra for every additional lift of 1.5m or part thereof in						
2.27.1	15A	All kinds of soil	31.200	CU.M	18.90		589.68	
2.27.2	15B	Ordinary or hard rock	2.400	CU.M	33.85		81.24	
2.34	16	Supplying chemical emulsion in sealed containers including delivery as specified - Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	372.000	LITR	174.30		64839.60	
2.35.1.1	17	Diluting and injecting chemical emulsion for PRE-CONSTRUCTIONAL ANTI-TERMITE treatment (excluding the cost of chemical emulsion) along the external wall where the apron is not provided using chemical emulsion @ 7.5 litres / Sq.m. of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wal & rodding etc with Chloropyriphos / Lindane E.C. 20% with 1% concentration.	288.000	SQ.M	6.75		1944.00	
2.25	18	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 upto 50m and lift upto 1.5m.	105.600	CUM	45.70		4825.92	

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					RS	P	RS	P
2.27	19	Supplying and filling in plinth with good river sand under floors including, watering, ramming, consolidating and dressing complete.	24.000	CUM	301.50		7236.00	
2.28	20	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50m and lift upto 1.5m in all kinds of soil.	24.000	SQM	5.12		122.88	
2.31	21	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50m outside the periphery of the area cleared.	240.000	SQ.M	2.65		636.00	
2.32	22	Clearing grass and removal of rubbish upto a distance of 50m outside the periphery of the area cleared.	240.000	SQ.M	1.36		326.40	
2.33	23	Felling trees of the girth (measured at a height of 1m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable material and disposal of unserviceable material.						
2.33.1	23A	Beyond 30cm girth upto and including 60cm girth	72.000	EACH	81.70		5882.40	
2.33.2	23B	Beyond 60cm girth upto and including 120cm girth	60.000	EACH	359.80		21588.00	
2.33.3	23C	Beyond 120cm girth upto and including 240cm girth	18.000	EACH	1658.85		29859.30	
2.33.4	23D	Above 240 cm girth.	12.000	EACH	3330.20		39962.40	
4.1	24	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - all work upto plinth level.						

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					RS	P	RS	P
4.1.3	24A	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size)	4.800	CU.M	1599.85		7679.28	
4.1.9	24B	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	24.000	CU.M	1415.55		33973.20	
4.1.11	24C	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size)	24.000	CU.M	1406.20		33748.80	
4.5.1	25	Providing and fixing upto floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centring, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete incl:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	6.000	CU.M	2845.95		17075.70	
4.11	26	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size)	72.000	SQ.M	95.17		6852.24	
4.12	27	Extra for providing and mixing water proofing material "Impermo" or equivalent in cement concrete work @ 1 kg per 50 kg of cement	14.400	KG	27.45		395.28	
5.3	28	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15 degree landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centring shuttering, finishing and reinforcement with 1:2:4 (1 cement:2	18.000	CU.M	2016.25		36292.50	

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					RS	P	RS	P
		coarse sand: 4 graded stone aggregate 20 mm nominal size).						
5.8	29	Reinforced cement concrete work in vertical and horizontal fins individually or forming box louvers, facias and eaves boards upto floor five level excluding the cost of centring, shuttering, finishing and reinforcement with 1:1.5:3 (1cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size)	6.000	CU.M	1856.75		11140.50	
5.9.3&5 AVG	30	Centring and shuttering including strutting, propping, etc, and removal of form for all works in foundation, basement, ground floor and first floor.	900.000	SQ.M	174.95		157455.00	
5.17	31	Providing hoisting and fixing upto floor five level precast reinforced cement concrete in vertical & horizontal fins individually or forming box louvers setting in cement mortar 1:2 (1 cement : 2 coarse sand) including the cost of required centring, shuttering and finishing smooth with 6mm thick cement plaster 1:3 ( 1 cement : 3 fine sand) on exposed surfaces complete but excluding the cost of reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	6.000	CU.M	4295.36		25772.16	
5.22.3	32	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete for cold twisted bars	11400.000	KG.	6.19		70566.00	
5.37	33	Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 Kms having continuous agitated mixr, manufactured as per mix design of specified grade	96.000	CU.M	4356.50		418224.00	

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		cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centring, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge - M25 grade reinforced cement concrete by using 410 kg of cement per cum of concrete. All works up to floor V level.				
5.39	34	Extra for carriage of R.M.C. beyond the initial lead of 10 KM	960.000	CU.M	20.90	20064.00
6.4.2	35	Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level in all shapes and sizes in Cement Mortar 1:6.	252.000	CU.M	2106.50	530838.00
6.13.2	36	Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level. in cement mortar 1:4	180.000	SQ.M	247.68	44583.24
7.1.1	37	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement :6 coarse sand : 12 graded stone aggregate 20mm nominal size) at plinth level with cement mortar 1:6 (1 cement: 6 coarse sand)	96.000	CU.M	1411.55	135508.80
11.3	38	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 of 40mm thick with 20mm nominal size stone aggregate.	480.000	SQ.M	104.89	50347.20
9.1.3	39	Providing wood work in frames of doors, windows, clerestory windows and other frames,wrought framed and fixed	1.680	CU.M	31339.40	52650.18

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					RS	P	RS	P
		in position of Kiln seasoned and chemically treated Hollock wood.						
9.5	40	Providing and fixing panelled or panelled and glazed shutters for doors, windows, clerestory windows including ISI marked black enamelled M.S butt hinges with necessary screws excluding panelling which will be paid for separately in Kiln seasoned and chemically treated Hollock wood.						
9.5.2.1	40A	35 mm thickness door shutters	48.000	SQ.M	899.70		43185.60	
9.5.2.2	40B	Kiln seasoned and chemically treated holloc wood 30 mm thickness cupboard shutters	4.800	SQ.M	810.90		38923.20	
L.S	41	Carrying from BHEL stores & fixing of windows in position (Labour charges only).	48.000	EACH	75.00		3600.00	
9.7.5.4	42	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows, clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured) .Panelling for panelled or panelled and glazed shutters. For 25 to 40 mm thickness of shutters by in Prelaminated particle board 12 mm thick with decorative lamination on both sides, grade I, Type II IS:12823 marked.	60.000	SQ.M	1027.30		61638.00	
14.29	43	Providing and fixing M.S .rounds or square bars with M.S flats at required spacings in wooden frames of windows and clerestory windows .	240.000	KG.	44.40		10656.00	
9.96 TO 100	44	Providing and fixing ISI marked anodised aluminium (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						

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					RS	P	RS	P
9.96.1	44A	250 x 16mm sliding door bolts ISI marked anodised	48.000	EACH	158.50		7608.00	
9.97.2	44B	250 x 10mm tower bolts	96.000	EACH	62.20		5971.20	
9.97.5	44C	100 x 10mm tower bolts	6.000	EACH	32.15		192.90	
9.100.1	44D	100mm handle	96.000	EACH	35.30		3388.80	
LS	44E	200mm x 6mm hook & eye	48.000	EACH	6.00		288.00	
LS	44F	Nylon buffer for doors & windows	48.000	EACH	4.00		192.00	
9.79.4	45	Providing and fixing special quality bright finished brass cupboard or ward rope 75 mm lock with four levers including necessary screws etc. complete (best make of approved quality). (75mm)	6.000	EACH	115.45		692.70	
L.S	46	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete. 20 mm dia.	60.000	R.M.	148.90		8934.00	
12.34(DSR20)	47	Lime concrete terracing on roofs average thickness 10cm laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete including rounding of junctions with parapet wall complete.	384.000	SQ.M	174.20		66892.80	
12.42	48	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 10mm gap for thermal expansion of single socketed pipes						
12.40.2	48A	110 mm diameter	288.000	R.M.	163.40		47059.20	

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					RS	P	RS	P
12.42	49	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 10mm gap for thermal expansion.						
12.42.1.2	49A	110 mm coupler	72.000	EACH	101.65		7318.80	
12.42.5.2	49B	110 mm bend - 87.50 degree	48.000	EACH	134.20		6441.60	
12.42.6.2	49C	110mm shoe	48.000	EACH	263.10		12628.80	
13.1.2	50	12mm cement plaster of mix 1:6 (1 cement : 6 coarse sand)	1320.000	SQ.M	49.00		64682.64	
13.2.2	51	15mm cement plaster of mix 1:6 (1 cement : 6 coarse sand)	1500.000	SQ.M	56.28		84414.00	
13.28.3	52	12mm thick plain cement mortar bands in cement marter 1:4 (1 cement : 4 fine sand): raised band.	144.000	SQ.M	137.55		19806.60	
13.16.1	53	6mm plaster of mix 1:3 (1 cement : 3 fine sand).	60.000	SQ.M	43.14		2588.40	
14.42.1	54	White washing two or more coats on old works with lime to given an even shade.	240.000	SQ.M	4.10		984.00	
14.42.2	55	White washing one coat on old works with lime to given an even shade	240.000	SQ.M	2.55		612.00	
13.37	56	White washing three coats with lime to given an even shade	3120.000	SQ.M	6.75		21060.00	
13.43.1	57	Applying one coat of cement primer of approved brand and manufacture on wall surface:	1320.000	SQ.M	17.20		22704.00	
13.44.1	58	Finishing walls with water proofing cement paint of required shade: on new work (two or more coats applied @ 3.84 kg/10 sq.m).	960.000	SQ.M	30.80		29568.00	
14.64.1	59	Finishing walls with water proofing cement paint of required shade: on old work (one or more coats applied @ 2.20 kg/10 sqm) over a priming coat of primer applied @ 0.80 litres/10 sq.m complete including cost of priming	960.000	SQ.M	27.95		26832.00	

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		coat.				
13.57.1	60	Painting with wood preservatives of approved brand and manufacture: on new work (two or more coats).	240.000	SQ.M	12.80	3072.00
13.62	61	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	240.000	SQ.M	51.30	12312.00
14.54.1	62	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.	168.000	SQ.M	22.85	3838.80
1	63	Carriage of materials by mechanical transport including loading, unloading and stacking - excavated earth debris etc.				
1.1.2	63A	1 KM lead	156.000	CUM	49.42	7709.52
1.1.2	63B	2 KM lead	6.000	CUM	56.41	338.46

2506758.12

ESCALATION @ 19.00 %

476284.04

TOTAL ESTIMATED VALUE

2983042.16

CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%

(Percentage in words

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TOTAL VALUE OF WORK

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**ESTIMATE****ESTIMATE REF NO : CTS/QE/02-08****NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
9.1.2	23A	SAL WOOD	30.000	CU.M	30511.90	915357.00
2.8.1	01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in FOUNDATION TRENCHES OR DRAINS ( not exceeding 1.5 m in width or 10 sqm on - plan) including dressing of sides & ramming of bottoms, lift upto 1.5m,including getting out the excavated soil and disposal of surplus excavated soil as directed,with in a lead of 50 m IN ALL KINDS OF SOIL.	1740.000	CU.M	103.40	179916.00
2.9.1	02	Excavation work in foundation trenches or drains not exceeding 1.5m in width or 10 sq.m. 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 soils as directed, within a lead of 50 m. ORDINARY ROCK	1500.000	CU.M	162.65	243975.00
2.25	03	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 upto 50 M and lift upto 1.5 M.	1440.000	CU.M	45.70	65808.00
2.27	04	Supplying and FILLING IN PLINTH WITH RIVER SAND under floors including watering, ramming, consolidating and dressing complete.	252.000	CU.M	301.50	75978.00
2.32	05	CLEARING GRASS AND REMOVAL OF THE RUBBISH upto a distance of 50 M outside periphery of the area cleared.	1584.000	SQ.M	1.35	2138.40
2.34	06	Supplying chemical emulsion in sealed containers including delivery as specified - Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	1800.000	LITR	174.30	313740.00
2.35.2	07	Diluting and injecting chemical emulsion for post-constructional ANTI-				

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		TERMITE TREATMENT (excluding cost of chemical emulsion) Along external wall below concrete or masonry apron using chemical emulsion @ 2.25 litre per linear metre including drilling and plugging holes etc., with:				
2.35.2.1	07A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	6516.000	SQ.M	6.75	43983.00
2.35.3	08	Diluting and injecting chemical emulsion for post-constructional ANTI-TERMITE TREATMENT:- of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12mm dia. holes and plugging with cement mortar 1:2 (1 cement: 2 coarse sand) to match the existing floor with:				
2.35.3.1	08A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	4800.000	SQ.M	48.70	233760.00
2.35.4	09	Diluting and injecting chemical emulsion for post-constructional ANTI-TERMITE TREATMENT: of existing masonry using chemical emulsion @ one litre per hole at 300mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement: 2 coarse sand) to the full depth of the hole with:				
2.35.4.1	09A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	2520.000	SQ.M	7.60	19152.00
4.11	10	Providing and laying DAMP PROOF COURSE 50MM thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	1200.000	CU.M	95.17	114204.00
4.1	11	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE**

ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
4.1.8	11A	CC 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size)	780.000	CU.M	1568.40		1223352.00	
5.3	12	REINFORCED CEMENT CONCRETE WORK IN SUSPENDED FLOORS, ROOFS HAVING SLOPE UPTO 15 DEGREE, LANDINGS, BALCONIES, LOFTS, ACCESS PLATFORM ETC., excluding the cost of centring, shuttering, finishing & reinforcement with 1:2:4 (1 cement: 2 coarse sand: 4 graded stone - aggregate 20 mm nominal size), at levels: . (NOTE: Floor one level corresponds to plinth level) Upto floor V level.	1200.000	CU.M	2016.25		2419500.00	
5.9	13	CENTRING and SHUTTERING including strutting, propping etc and removal of form in all floors; for: .						
5.9.3	13A	Suspended floors, roofs, landings, balconies, loft and access platform etc. (Upto 3.5m floor height). (NOTE:- Floor height to be taken from finished floor level to finished slab bottom).	5280.000	SQ.M	187.35		989208.00	
5.9.7	13B	Staircases,(expt.landings & spiral-staircases)	600.000	SQ.M	204.00		122400.00	
5.9.15	13C	Small lintels not exceeding 1.5 M clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	1200.000	SQ.M	119.25		143100.00	
5.9.19	13D	Weather shade , chajjas, corbels, edges etc.	1020.000	SQ.M	258.60		263772.00	
5.12	14	Providing, hoisting & fixing PRECAST REINFORCED CEMENT CONCRETE WORK IN STRING COURSES, BANDS, COPINGS, BED PLATES, ANCHOR BLOCKS, PLAIN WINDOW SILLS AND THE LIKE including the cost of required centring, shuttering,finishing smooth with 6 mm thick cement plaster 1:3 (1 cement:3 fine	12.000	CU.M	2913.85		34966.20	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		sand) on exposed surfaces complete but excluding cost of reinforcement with 1:2:4 (1 cement: 2 coarse sand:4 graded stone aggregate 20mm nominal size) ; at levels: (NOTE: Floor one level corresponds to plinth level) upto floor V level.						
DATA	15	Providing LATH plastering with and including the cost of MS chicken mesh (wt. not less than 0.15 Kg/sq.m) in double layer, in vertical and horizontal fins individyually for box louvers, bands, circular works, railing and facias etc. in cement mortar 1:4 (1 cement : 4 coarse sand) including finishin with 6mm tk caement plaster 1:3 (1 cement : 3 fine sand) complegte with necessary centring, shuttering and scaffolding, but excluding the cost of reinforcement upto floor five level	420.000	SQ.M	396.31		166450.32	
5.22.3	16	REINFORCEMENT FOR RCC WORK including straightening,cutting, bending, placing in position and binding all complete at all levels, with: . Cold twisted bars.	120000.000	KG	6.19		742800.00	
6.4.1	17	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in: Cement mortar 1:4 (1 cement: 4 fine sand)	108.000	CU.M	2109.80		227858.40	
6.4.2	18	Brick work with FPS BRICKS OF CLASS DESIGNATION 50 in cement mortar 1:6 (1 cement: 6 coarse sand), at all levels: (NOTE: Floor 1 level corresponds to plinth) Above plinth and upto floor five level .	1440.000	CU.M	2106.50		3033360.00	
6.13.2	19	HALF BRICK MASONRY WITH FPS BRICK OF CLASS DESI- GNATION 75 in cement mortar 1:4 (1 cement: 4 coarse sand), at levels: (NOTE: Floor one level	1200.000	SQ.M	247.68		297221.76	

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ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		corresponds to plinth level) . Above plinth and upto floor five level.				
7.1.1	20	RANDOM RUBBLE MASONRY with hard stone in FOUNDATION and PLINTH including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand: 12 graded stone aggregate 20 mm nominal size) at plinth level, (with bond/through stones atleast 1 No. per 0.5 sqm of wall area), in : Cement mortar 1:6 (1 cement: 6 coarse sand) .	1320.000	CU.M	1411.55	1863246.00
8.2	21	Providing & fixing 18mm THICK mirror polished, machine cut for KITCHEN PLATFORMS, VANITY COUNTER FACIAS and similar locations of required size of approved shade, colour and texture liad over 20 mm thick base cement mortar 1:4 (1 cement: 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing etc complete at all lvls WITH GRANITE BLACK, of: slab area above 0.50 sqm	288.000	SQ.M	1328.62	382643.76
9.53	22	Providing 40 x 5 mm flat IRON HOLD FAST 40 cm. long including fixing to frame with 10 mm dia. bolts, nuts and wooden plugs and embedding in cement concrete block 30 x 10 x 15 cms. 1:3:6 mix (1 Cement: 3 coarse sand:6 graded stone aggregate 20mm nominal size)	6000.000	EACH	55.80	334812.00
9.1.2	23	Providing WOOD WORK IN FRAMES OF DOORS, WINDOWS, CLERESTORY WINDOWS and other frames, wrought framed and fixed in position, with: Sal wood				.00
9.1.3	23B	Kiln seasoned and chemically treated first class COUNTRY WOOD (like Hollock, Honne, Mathi, Nandi, Kail, etc. as directed).	12.000	CU.M	31339.40	376072.80

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**ESTIMATE**

ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
9.6	24	Providing & fixing 35 mm THICK LAMINATED VENEER LUMBER DOOR SHUTTER conforming to TADS 15:1995, manufactured in factories by approved manufacturers, including ISI marked black enamelled M.S butt hinges (4 nos 100 x 58 x 1.9mm per shutter) with necessary screws as per direction of Engineer-in-charge and with panels of, :		SQ.M				
9.6.1	24A	9.6.1.: 12 mm thick plain grade -1, medium density flat pressed 3 layer particle board FPT - I (like Novapan, Ecoboard) or graded wood particle board FPT-I (like Bhutan Board) conforming to IS-3087 marked bonded with BWP type synthetic resin adhesive as per IS:848.	1056.000	SQ.M	1877.20		1982323.20	
9.9	25	Providing and fixing GLAZED SHUTTERS FOR DOORS, WINDOWS AND CLERESTORY WINDOWS using 10 kg/sqm (4 mm thick) glass panes including necessary cleats and black enamelled ISI marked M.S butt hinges (@ 4 Nos. 100 x 58 x 1.9mm per shutter) with necessary screws etc. of thickness and wood kind:						
9.9.2.1	25A	35 mm thick, Second class Kiln seasoned and chemically treated hollock wood .	444.000	SQ.M	1178.60		523298.40	
9.40	26	Providing & fixing wooden moulded beading to door and window frame with iron screws, plugs & priming coat on unexposed surfaces etc. complete, with, : 50 x 12 mm, 2nd class teak wood .	3720.000	R.M.	53.85		200322.00	
9.48	27	Providing and fixing M.S GRILLS OF REQUIRED PATTERN IN FRAMES OF WINDOWS etc. with M.S flats, square or round bars etc. including applying a priming coat of approved (zinc chromate) steel primer etc., all complete, and:						

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ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
9.48.2	27A	Fixed to Openings/wooden frames with rawl plugs, screws etc,	7200.000	KG	64.40		463680.00	
9.95 TO 9.11	28	Providing & fixing ISI marked ALUMINIUM FITTINGS anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with nuts and C.P. brass screws as required etc. complete, of type and size:						
9.96.1	28A	SLIDING DOOR BOLTS : 300 x 16 mm .	672.000	EACH	158.50		106512.00	
9.97.3	28B	TOWER BOLTS : 200 x 10 mm	1344.000	EACH	52.00		69888.00	
9.97.5	28C	TOWER BOLTS : 100 x 10 mm	2688.000	EACH	32.15		86419.20	
9.100.1	28D	HANDLES : 125 mm (Base plate size: 175x 32x 5mm & rod dia: 12mm) .	672.000	EACH	48.80		32793.60	
9.100.3	28E	HANDLES : 75 mm (Base plate size: 125x 32x 5mm & rod dia: 10mm) .	2688.000	EACH	28.35		76204.80	
9.101.1	28F	HANGING FLOOR DOOR STOPPER: Single rubber stopper, (150 mm long)	672.000	EACH	19.05		12801.60	
11.36	29	Providing and fixing 1st quality ceramic tiles conforming to IS:13753 of minimum thickness 5mm of approved make like NITCO, ORIENT, SOMANY KAJARIA, or equivalent make in all colours, shades except begundy, bottle green, black of any size as approved by Engineer-in-charge in SKIRTING, RISERS OF STEPS, AND DADOS over 12mm 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.	960.000	SQ.M	492.26		472573.80	
11.37	30	Providing and laying ceramic glazed floor tiles 300mm x 300mm (thickness to be specified by the manufacturer) of first quality conforming to IS	6300.000	SQ.M	534.31		3366180.72	

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ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		15622 of approved make in colours such as whitem 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.						
12.20	31	Providing and laying PRESSED CLAY TILES (as per approved pattern 20 mm nominal thickness and approved size) ON ROOFS jointed with cement mortar 1:4 (1 cement: 4 coarse sand) mixed with 2% integral water proofing compound laid over a bed of 20 mm thick cement mortar 1:4 (1 cement:4 coarse sand) and finished neat complete.	3000.000	SQ.M	288.24		864729.60	
12.34 (DSR2)	32	Lime concrete terracing on roofs average thickness 10 cm laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty :2 surkhi) rammed and finished with gur and belgiri treatment complete including rounding of junctions with parapet wall complete.	3000.000	SQ.M	174.20		522600.00	
12.38	33	Providing and fixing M.S HOLDER BAT CLAMPS of approved design to CI/ SCI/ PVC rain water pipes embedded in and including cement concrete blocks 10x10x 10 cm. of 1:2:4 (1 cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size) and cost of cutting holes and making good the walls etc. 100mm dia pipes	144.000	EACH	63.69		9171.72	
12.41	34	Providing and fixing on wall face RIGID UNPLASTICISED PVC RAIN WATER PIPES (working pressure 4 kg / sqcm) conforming to IS:13592 including jointing with 'T'shaped seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion. Single socketed pipes, of OUTER DIA.: 110 mm (+0.4mm) (wall thk 2.5-3.0 mm)	2040.000	RMT	163.40		333336.00	

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ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
12.42	35	Providing and fixing on wall face RIGID UNPLASTICISED P.V.C. MOULDED FITTINGS / ACCESSORIES ( working pressure 4 kg / sqcm. and wall thickness same as of main pipe) for unplasticised PVC RAIN WATER PIPES conforming to IS:13592 including jointing with seal ring conforming to IS:5382 leaving 10 mm gap for thermal expansion, of type and dia: (NOTE:i)concealed pipe joints to be jointed with rubber ring and solvent cement (ii) exposed pipe joints to be jointed with rubber ring and rubber lubricant) .		EACH				
12.42.1.2	35A	Coupler 110mm dia	72.000	EACH	101.65		7318.80	
12.42.5.2	35B	Bend 87.5degree 110mm dia	96.000	EACH	134.20		12883.20	
12.42.3.2	35C	Single tee with door 110 x 110 x 110mm	96.000	EACH	260.70		25027.20	
12.42.6.2	35D	Shoe (plain) 110mm dia	96.000	EACH	263.10		25257.60	
13.16	36	6mm cement plaster ofmix 1:3 (1 cement: 3 fine sand) for ceiling, RCC / CC exposed surface.	3240.000	SQ.M	43.14		139771.68	
13.37.1	37	Providing WHITE WASHING with LIME to given an even shade on new work (three or more coats) .	31800.000	SQ.M	6.75		214650.00	
13.41.1	38	Providing DISTEMPERING with OIL BOUND WASHABLE DISTEMPER of approved brand and manufacture to give an even shade on new work (two or more coats) over and including priming coat with cement primer .	6600.000	SQ.M	41.55		274230.00	
13.61	39	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and manufacture to give an even shade two or more coats on new work.	4080.000	SQ.M	35.35		144228.00	
13.62.1	40	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and	696.000	SQ.M	51.30		35704.80	

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BOILER AUXILIARIES PLANT

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**ESTIMATE**

ESTIMATE REF NO : CTS/QE/02-08

NAME OF WORK : CONSTRUCTION OF TYPE B 96 UNITS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		manufacture of required colour to give an even shade two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.				
13.69.1	41	POLISHING ON WOOD WORK with ready made wax polish of approved brand and manufacture on new work.	288.000	SQ.M	35.80	10310.40
13.1.2	42	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required), of mix: 1:6 (1 cement: 6 fine sand)	15780.000	SQ.M	49.00	773251.56
13.2	43	Providing 15mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required and for all exterior height) on rough side of single or half brick wall, of mix:				
13.2.1	43A	1:4 (1 cement : 4 fine sand)	192.000	SQ.M	56.51	10842.72
13.2.2	43B	1:6 (1 cement : 6 fine sand)	19320.000	SQ.M	56.28	1087252.32
13.3.1	44	Providing 20mm thick CEMENT PLASTER.: 1:4 (1 cement: 4 fine sand)	600.000	SQ.M	66.37	39820.92
13.33.1	45	POINTING on STONE WORK with cement mortar 1:3 (1 cement: 3 fine sand), type: Ruled pointing	720.000	SQ.M	56.44	40636.32
13.46.1	46	Finishing walls with Acrylic Smooth exterior paint of required shade: On New work (Two or more coat applied @ 1.67 liter/10 Sq.m. over and including base coat of water proofing cement paint applied @ 2.20 Kg/10 Sq.m.	13200.000	SQ.M	50.40	665280.00
17.9.1	47	Providing and fixing white glazed fire clay KITCHEN SINK of size 600x 450x 250 mm, including making all connections but excluding the cost of fittings . (NOTE: Sink edge to be 3-5 mm below the platform top)	96.000	EACH	1793.35	172161.60

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ESTIMATE REF NO : CTS/QE/02-08

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
17.31	48	Providing and fixing, 600 x 450 mm, BEVELLED EDGE MIRROR of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with CP brass screws & washers complete. (NOTE: Mirror centre ht.from fl.lvl: 145-150 cm in gen)	96.000	EACH	493.65	47390.40
17.33	49	Providing & fixing 600x 120x 5 mm GLASS SHELF with edges rounded off supported on anodised aluminium angle frame with CP brass brackets and guard rail fixed with 40 mm long screws, rawl plugs etc. complete .	96.000	EACH	218.80	21004.80
17.1.1	50	Providing & fixing WATER CLOSET SQUATTING PAN (INDIAN TYPE W.C PAN) with 100mm SCI or UPVC (as required) P or S trap, 10 litre low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS 7231, Parryware / Hindware / Seabird / Orietn (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required, of type: (NOTE: Ht bet pan top & cistrn underside to be 60-65cm) White Vitreous China Orissa pattern W.C pan of size 580 x 440 mm with integral type foot rests.	96.000	EACH	2278.75	218760.00
17.7.1	51	Providing & fixing WASH BASIN with C.I/M.S brackets, 15mm C.P brass pillar taps, Kingston/ Gem/ Techno/ Parko, 32mm C.P brass waste of standard pattern including painting of fittings and brackets, cutting and making good the walls, wherever required, of type: (NOTE: Ht. of basin rim from floor level to be 75-80cm) White Vitreous China wash basin size 630x 450 mm with a SINGLE 15 mm C.P brass pillar taps.	96.000	EACH	1319.95	126715.20

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
17.28	52	Providing & fixing PVC WASTE PIPE (Min.length 70 cm.) for SINK OR WASH BASIN including PVC waste fittings complete, of type: 17.28.2.2: Flexible pipe, 40 mm dia.	96.000	EACH	49.10		4713.60	
18.15	53	Providing and fixing BRASS BIB COCK of approved quality; of nominal bore of: (NOTE: Outlet to be around 150 mm from wall face) . 18.15.1: 15 mm dia. (Min wt 400 grms)	384.000	EACH	191.70		73612.80	
18.16	54	Providing & fixing BRASS STOP COCK of approved quality; of nominal bore of: 18.16.1: 15 mm dia. (Min wt 400 grms)	288.000	EACH	191.70		55209.60	
18.17	55	Providing & fixing BRASS GATE VALVE OR FULL WAY VALVE with CI wheel of approved quality (screwed end); of nominal bore of: 18.17.1: 25 mm dia. (Wt 1077 gm +/-5%)	192.000	EACH	285.50		54816.00	
18.22	56	Providing and fixing CP BRASS SHOWER ROSE with 15 or 20 mm inlet, of size: (NOTE: Shower center to be around 50 cm from wall face) 18.22.1: 100 mm diameter	96.000	EACH	40.40		3878.40	
18.7	57	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 1.00m 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 - EXPOSED on wall 18.7.1: 15 mm dia. (wall thk 2.8-3.3mm)	600.000	RMT	97.95		58770.00	
18.9.2	58	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &	1008.000	RMT	107.70		108561.60	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		cold water supply including all CPVC plain & brass threaded fittings. This includes jointing of pipes & fittings with one step CPVC solvent cement trenching, refilling and testing of joints complete as per direction of Engineer-in-charge. External work: 18.9.2: 20 mm nominal outer dia. Pipes.				
19.1.2	59	21.1.2 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 : 150 mm dia	600.000	RMT	134.92	80951.16
1.1.2	60	Carriage of materials including loading leading unloading stacking or spreading the materials as directed by the Engineer-in-charge. Upto a lead of 2 Km	1200.000	CUM	56.40	67680.00

28552299.96

ESCALATION @ 19.00 % 5424936.99

TOTAL ESTIMATED VALUE 33977236.95

CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%

(Percentage in words )

TOTAL VALUE OF WORK

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**ESTIMATE**

ESTIMATE REF NO : CTS/QE/03-08

NAME OF WORK : CONSTRUCTION OF TYPE D 8 UNITS WITH SERVANT QUARTERS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
2.8.1	01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in FOUNDATION TRENCHES OR DRAINS ( not exceeding 1.5 m in width or 10 sqm on - plan) including dressing of sides & ramming of bottoms, lift upto 1.5m,including getting out the excavated soil and disposal of surplus excavated soil as directed,with in a lead of 50 m IN ALL KINDS OF SOIL.	1160.000	CU.M	103.40	119944.00
2.9.1	02	Excavation work excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains not exceeding 1.5m in width or 10 sq.m. 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 soils as directed, within a lead of 50 m. ORDINARY ROCK	50.000	CU.M	162.65	8132.50
2.25	03	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 upto 50 M and lift upto 1.5 M.	700.000	CU.M	45.70	31990.00
2.27	04	Supplying and FILLING IN PLINTH WITH RIVER SAND under floors including watering, ramming, consolidating and dressing complete.	110.000	CU.M	301.50	33165.00
2.32	05	CLEARING GRASS AND REMOVAL OF THE RUBBISH upto a distance of 50 M outside periphery of the area cleared.	400.000	SQ.M	1.35	540.00
2.34	06	Supplying chemical emulsion in sealed containers including delivery as specified - Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	320.000	LITR	174.30	55776.00
2.35.2	07	Diluting and injecting chemical emulsion for post-constructional ANTI-				

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ESTIMATE REF NO : CTS/QE/03-08

NAME OF WORK : CONSTRUCTION OF TYPE D 8 UNITS WITH SERVANT QUARTERS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		TERMITE TREATMENT (excluding cost of chemical emulsion) Along external wall below concrete or masonry apron using chemical emulsion @ 2.25 litre per linear metre including drilling and plugging holes etc., with:						
2.35.2.1	07A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	543.000	SQ.M	10.45		5674.35	
2.35.3	08	Diluting and injecting chemical emulsion for post-constructional ANTI-TERMITE TREATMENT (excluding cost of chemical emulsion) of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12mm dia. holes and plugging with cement mortar 1:2 (1 cement: 2 coarse sand) to match the existing floor with:						
2.35.3.1	08A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	400.000	SQ.M	48.70		19480.00	
2.35.4	09	Diluting and injecting chemical emulsion for post-constructional ANTI-TERMITE TREATMENT (excluding cost of chemical emulsion) of existing masonry using chemical emulsion @ one litre per hole at 300mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement: 2 coarse sand) to the full depth of the hole with:						
2.35.4.1	09A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	210.000	SQ.M	7.60		1596.00	
4.11	10	Providing and laying DAMP PROOF COURSE 50MM thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	705.000	SQ.M	95.17		67094.85	
4.1	11	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and						

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		shuttering for ALL WORKS UPTO PLINTH LEVEL, with:						
4.1.8	11A	CC 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size)	342.000	CU.M	1568.40			536392.80
5.37	12	Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixture, for a lead upto 10 KM having continuous agitated mixer manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centring, shuttering, finishing and reinforcements - including admixtures in recommended proportions (as per IS 9103) to accelerate, retard setting of concrete improve workability without imparing strength and durability as per directions of Engineer - in - charge. M-25 grade reinforced cement concretre etc by using 410 Kg of cement per cum of concrete. All work from plinth level upto floor V level in:	250.000	CU.M	4356.50			1089125.00
5.9	13	CENTRING and SHUTTERING inlcuding strutting, propping etc and removal of form in all floors; for: .						
5.9.1	13A	Foundations, footings, bases of column etc. for mass concrete	22.000	SQ.M	119.25			2623.50
5.9.3	13B	Suspended floors, roofs, landings, balconies, loft and access platform etc.	2370.000	SQ.M	187.35			444019.50
5.9.5	13C	5.9.5: Lintels, beams, plinth beams, girders, bressummers and cantilevers.	117.000	SQ.M	162.65			19030.05
5.9.7	13D	Staircases,(expt.landings & spiral-staircases)	50.000	SQ.M	204.00			10200.00
5.9.6	13E	Column, pillers, piers, abutments, posts & struts	54.000	SQ.M	238.40			12873.60

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
5.17	14	Providing, hoisting & fixing PRECAST REINFORCED CEMENT CONCRETE IN VERTICAL AND HORIZONTAL FINS INDI- VIDUALLY OR FORMING BOX LOUVERS including setting in cement mortar 1:2 (1 cement: 2 coarse sand), cost of required centring, shuttering and finishing smooth with 6 mm thick cement plaster 1:3 (1 cement: 3 fine sand) on exposed surfaces complete, but excluding the cost of reinforcement with 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size), at levels: (NOTE: Floor one level corresponds to plinth level) . (NOTE: Floor one level corresponds to plinth level) upto floor V level.	5.000	CU.M	4294.86		21474.30	
5.22.3	15	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending, placing in position and binding all complete at all levels, with: . Cold twisted bars	26000.000	KG	6.19		160940.00	
6.4.1	16	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in: Cement mortar 1:4 (1 cement: 4 fine sand)	9.000	CU.M	2109.80		18988.20	
6.4.2	17	Brick work with FPS BRICKS OF CLASS DESIGNATION 50 in cement mortar 1:6 (1 cement: 6 coarse sand), at all levels: (NOTE: Floor 1 level corresponds to plinth) Above plinth and upto floor five level .	620.000	CU.M	2106.50		1306030.00	
6.13.2	18	HALF BRICK MASONRY WITH FPS BRICK OF CLASS DESIGNATION 75 in cement mortar 1:4 (1 cement: 4 coarse sand), at levels: (NOTE: Floor one level corresponds to plinth level) . Above plinth and upto floor five level.	72.000	SQ.M	247.68		17833.31	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
7.1.1	19	7.1: RANDOM RUBBLE MASONRY with hard stone in FOUNDATION and PLINTH including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand: 12 graded stone aggregate 20 mm nominal size) at plinth level, with cement mortar 1:6 (1 cement : 6 coarse sand)	640.000	CU.M	1411.55		903392.00	
8.2.1.2	20	Providing & fixing 18mm THICK gauge saw cut mirror polished, machine cut for KITCHEN PLATFORMS, VANITY COUNTER window sills facias and similar locations of required size of approved shade, colour and texture liad over 20 mm thick base cement mortar 1:4 (1 cement: 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding, polishing etc complete at all lvls WITH GRANITE BLACK, of: slab area above 0.50 sqm	24.000	SQ.M	1328.62		31886.98	
9.53	21	Providing 40 x 5 mm flat IRON HOLD FAST 40 cm. long including fixing to frame with 10 mm dia. bolts, nuts and wooden plugs and embedding in cement concrete block 30 x 10 x 15 cms. 1:3:6 mix (1 Cement: 3 coarse sand:6 graded stone aggregate 20mm nominal size)	770.000	EACH	55.80		42967.54	
9.1	22	Providing WOOD WORK IN FRAMES OF DOORS, WINDOWS, CLERESTORY WINDOWS and other frames, wrought framed and fixed in position, with:						.00
9.1.1	22A	Second class teak wood	4.000	CUM	52090.00		208360.00	
9.1.3	22B	Kiln seasoned and chemically treated first class hallock COUNTRY WOOD.	10.000	CU.M	31339.45		313394.50	
9.6	23	Providing & fixing 35 mm THICK LAMINATED VENEER LUMBER DOOR SHUTTER conforming IS 14616 to TADS 1S:2001		SQ.M				

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		(Part B), manufactured in factories by approved manufacturers, including ISI marked black enamelled M.S butt hinges with necessary screws as per direction of Engineer-in-charge and with panels of, :				
9.6.1	23A	9.6.1.: 12 mm thick plain grade -1, medium desnity flat pressed 3 layer particle board FPT - I or graded wood particle board FPT-I conforming to IS-3087 marked bonded with BWP type synthetic resin adhesive as per IS:848.	140.000	SQ.M	1877.20	262808.00
9.9	24	Providing and fixing GLAZED SHUTTERS FOR DOORS, WINDOWS AND CLERESTORY WINDOWS using 4 mm thick float glass panes including necessary black enamelled ISI marked M.S butt hinges with necessary screws etc. of thickness and wood kind:				
9.9.2.2	24A	30 mm thick, Kiln seasoned and chemically treated hollock wood .	24.000	SQ.M	1077.50	25860.00
9.20	25	Providing & fixing ISI mark FLUSH DOOR SHUTTERS confirming to IS:2202 (Part 1) DECORATIVE TYPE, core of block board construction with frame of 1st class hard wood & well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel but hings.	76.000	SQ.M	1415.45	107574.20
9.42	26	9.42: Providing and fixing 18mm thick, 150mm wide pelmet of flat pressed 3 layer or graded wood particle board medium density grade I, I.S.:3087 marked including top cover of 6mm commercial ply wood conforming to IS :303 BWR grade nickle plated M.S. pipe 20mm dia(heavy duty) curten rod with nickel plated brackets including	200.000	RMT	208.70	41740.00

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		fixing with 25x3 mm M.S.flat 10 cm long and rawl plugs 50mm long (designation 10 no.) etc. all complete				
9.51.1	27	Providing and fixing FLY PROOF GALVANISED M.S WIRE GAUGE TO WINDOWS AND CLERESTORY WINDOWS using galvanised M.S wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.63 mm and with: Second class teak wood beading, 62 x 19 mm.	3.500	SQ.M	443.80	1553.30
9.83	28	Providing & fixing IS:3564 marked UNIVERSAL HYDRAULIC DOOR CLOSER with necessary accessories and screws etc. complete of: Aluminium die cast body tubular type.	8.000	EACH	610.60	4884.80
11.36	29	Providing and fixing 1st quality ceramic 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 the Engineer - in - charge in in SKIRTING, RISERS OF STEPS, AND DADOS over 12mm 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.	455.000	SQ.M	492.26	223980.30
10.2	30	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	600.000	KG	10.70	6420.00
11.37	31	Providing and laying ceramic glazed floor tiles 300mm x 300mm (thickness to be specified by the manufacturer) of first quality conforming to IS	1000.000	SQ.M	534.31	534314.40

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		15622 of approved make in colours such as whitem 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.						
9.96 TO 9.11	32	Providing & fixing ISI marked ALUMINIUM FITTINGS 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.						
9.96.1	32A	SLIDING DOOR BOLTS : 300 x 16 mm .	96.000	EACH	158.50		15216.00	
9.97.3	32B	Tower bolts 200x10mm	160.000	EACH	52.00		8320.00	
9.97.5	32C	TOWER BOLTS : 100 x 10 mm	100.000	EACH	32.15		3215.00	
9.100.1	32D	HANDLES : 125 mm (Base plate size: 175x 32x 5mm & rod dia: 12mm) .	80.000	EACH	48.80		3904.00	
9.100.3	32E	HANDLES : 75 mm (Base plate size: 125x 32x 5mm & rod dia: 10mm) .	100.000	EACH	28.35		2835.00	
9.101.1	32F	HANGING FLOOR DOOR STOPPER: Single rubber stopper.	32.000	EACH	19.05		609.60	
12.20	33	Providing and laying PRESSED CLAY TILES (as per approved pattern 20 mm nominal thickness and approved size) ON ROOFS jointed with cement mortar 1:4 (1 cement: 4 coarse sand) mixed with 2% integral water proofing compound laid over a bed of 20 mm thick cement mortar 1:4 (1 cement:4 coarse sand) and finished neat complete.	1000.000	SQ.M	288.24		188243.20	
12.34 (DSR2)	34	Lime concrete terracing on roofs average thickness 10 cm laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty :2 surkhi) rammed and finished with gur and belgiri treatment complete including rounding of junctions with parapet wall complete.	1000.000	SQ.M	174.20		174200.00	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
12.38.1	35	Providing and fixing M.S HOLDER BAT CLAMPS of approved design to CI/ SCI/ PVC rain water pipes embedded in and including cement concrete blocks 10x10x 10 cm. of 1:2:4 (1 cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size) and cost of cutting holes and making good the walls etc. 100mm dia pipes	12.000	EACH	63.69		764.31	
12.41	36	Providing and fixing on wall facae unplasticised - Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion.						
12.41.1	36A	Single socketed pipes of 75mm dia	60.000	RMT	95.00		5700.00	
12.41.2	36B	Single socketed pipes of 110mm dia	160.000	RMT	163.40		26144.00	
12.42	37	Providing and fixing on wall face RIGID UNPLASTICISED P.V.C. MOULDED FITTINGS / ACCESSORIES ( working preasure 4 kg / sqcm. and wall thickness same as of main pipe) for unplasticised PVC RAIN WATER PIPES conforming to IS:13592 including jointing with seal ring conforming to IS:5382 leaving 10 mm gap for termal exp- ansion, of type and dia: (NOTE:i)concealed pipe joints to be jointed with rubber ring and solvent cement (ii) exposed pipe joints to be jointed with rubber ring and rubber lubricant) .		EACH				
12.42.1.1	37A	Coupler of 75mm dia	16.000	EACH	81.40		1302.40	
12.42.1.2	37B	Coupler 110mm dia	16.000	EACH	101.65		1626.40	
12.42.3.1	37C	Single Tee with door of 75x75x75mm	16.000	EACH	177.45		2839.20	
12.42.3.2	37D	Single tee with door 110x110x110mm	16.000	EACH	260.70		4171.20	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
12.42.5.1	37E	Bend 87.5 degree 75mm	16.000	EACH	88.40		1414.40	
12.42.5.2	37F	Bend 87.5degree 110mm dia	16.000	EACH	134.20		2147.20	
12.42.6.1	37G	Plain shoe 75mm	16.000	EACH	152.25		2436.00	
12.42.6.2	37H	Shoe (plain) 110mm dia	16.000	EACH	263.10		4209.60	
13.37.1	38	Providing white washing with lime to give an even shade on new work (three or more coats).	4000.000	SQ.M	6.75		27000.00	
13.41.1	39	Providing distempering with oil bound washable distember of approved brand and manufacture to give an even shade on new work (two or more coats) over and including priming coat with cement primer.	1200.000	SQ.M	41.55		49860.00	
13.61	40	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and manufacture to give an even shade two or more coats on new work.	750.000	SQ.M	35.35		26512.50	
13.69.1	41	POLISHING ON WOOD WORK with ready made wax polish of approved brand and manufacture on new work.	300.000	SQ.M	35.80		10740.00	
13.1.1	42	Providing 12mm thick cement plaster (including providing necessary plaster grooves wherever required) of mix 1:4	96.000	SQ.M	49.22		4724.68	
13.1.2	43	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required), of mix: 1:6 (1 cement: 6 fine sand)	3200.000	SQ.M	49.00		156806.40	
13.2	44	Providing 15mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required and for all exterior height) on rough side of single or half brick wall, of mix:						
13.2.1	44A	1:4 (1 cement : 4 fine sand)	16.000	SQ.M	56.47		903.56	
13.2.2	44B	1:6 (1 cement : 6 fine sand)	2840.000	SQ.M	56.28		159823.84	
13.3.1	45	Providing 20mm thick CEMENT PLASTER.: 1:4 (1 cement: 4 fine sand)	50.000	SQ.M	66.37		3318.41	

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					RS	P	RS	P
13.33.1	46	POINTING on STONE WORK with cement mortar 1:3 (1 cement: 3 fine sand), type: Ruled pointing	60.000	SQ.M	56.44		3386.36	
13.46.1	47	Finishing walls with Acrylic Smooth exterior paint of required shade: On New work (Two or more coat applied @ 1.67 liter/10 Sq.m. over and including base coat of water proofing cement paint applied @ 2.20 Kg/10 Sq.m.	2100.000	SQ.M	50.40		105840.00	
17.9.1.	48	Providing and fixing white glazed fire clay KITCHEN SINK of size 600x 450x 250 mm, including making all connections but excluding the cost of fittings and brackets, cutting and making go the walls wherever required, of type. (NOTE: Sink edge to be 3-5 mm below the platform top)	8.000	EACH	1767.45		14139.60	
17.31	49	Providing and fixing, 600 x 450 mm, BEVELLED EDGE MIRROR of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with CP brass screws & washers complete. (NOTE: Mirror centre ht.from fl.lvl: 145-150 cm in gen)	24.000	EACH	493.65		11847.60	
17.33	50	Providing & fixing 600x 120x 5 mm GLASS SHELF with edges rounded off supported on anodised aluminium angle frame with CP brass brackets and guard rail fixed with 40 mm long screws, rawl plugs etc. complete .	24.000	EACH	218.80		5251.20	
17.1.1	51	Providing & fixing WATER CLOSET SQUATTING PAN (INDIAN TYPE W.C PAN) with 100mm SCI or UPVC (as required) P or S trap, 10 litre low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS 7231, Parryware / Hindware / Seabird / Orietn (Coral) with all fittings and fixtures	16.000	EACH	2278.75		36460.00	

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					RS	P	RS	P
		complete including cutting and making good the walls and floors wherever required, of type: (NOTE: Ht bet pan top & cistrn underside to be 60-65cm) White Vitreous China Orissa pattern W.C pan of size 580 x 440 mm with integral type foot rests.						
17.2.1	52	Providing and fixing WHITE VITREOUS CHINA WATER CLOSET PEDESTAL TYPE (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, Parryware/ Hindware/ Seabird/ Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required, with: . (NOTE: Max.ht. bet. pan top & cistern under side -30cm) W.C pan with ISI marked white solid plastic seat and lid.	16.000	EACH	2126.60		34025.60	
17.7.1	53	Providing & fixing WASH BASIN with C.I/M.S brackets, 15mm C.P brass pillar taps, Kingston/ Gem/ Techno/ Parko, 32mm C.P brass waste of standard pattern including painting of fittings and brackets, cutting and making good the walls, wherever required, of type: (NOTE: Ht. of basin rim from floor level to be 75-80cm) White Vitreous China wash basin size 630x 450 mm with a SINGLE 15 mm C.P brass pillar taps.	32.000	EACH	1319.95		42238.40	
17.28.2.0	54	Providing & fixing PVC WASTE PIPE (Min.length 70 cm.) for SINK OR WASH BASIN including PVC waste fittings complete, of type: Flexible pipe, 40 mm dia.	32.000	EACH	49.10		1571.20	
17.73.1	55	Providing and fixing P.T.M.T. TOWEL RAIL complete with brackets fixed to	24.000	EACH	294.65		7071.60	

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					RS	P	RS	P
		wooden cleats with C.P. brass screws with concealed fitting arrangement of approved quality, colour and make (Prayag or Equivalent) 450 mm long Towel Rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170 gms.						
18.15.1	56	Providing and fixing BRASS BIB COCK of approved quality; of nominal bore of: (NOTE: Outlet to be around 150 mm from wall face) . 18.15.1: 15 mm dia. (Min wt 400 grms)	160.000	EACH	191.70		30672.00	
18.16.1	57	Providing & fixing BRASS STOP COCK of approved quality; of nominal bore of: 18.16.1: 15 mm dia. (Min wt 400 grms)	80.000	EACH	191.70		15336.00	
18.17.1	58	Providing & fixing BRASS GATE VALVE OR FULL WAY VALVE with CI wheel of approved quality (screwed end); of nominal bore of: 18.17.1: 25 mm dia. (Wt 1077 gm +/-5%)	16.000	EACH	285.50		4568.00	
18.63	59	Providing & fixing P.T.M.T. SWIVELLING SHOWER 15mm nominal size, 95mm long, 65mm dia of approved quality, colour & make weighing not less than 40 gms. with approximate 80 holes of 1.2mm dia. (Prayag make or Equivalent)	24.000	EACH	148.75		3570.00	
18.7.1	60	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 1.00m 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 - EXPOSED on wall 18.7.1: 15 mm dia. (wall thk 2.8-3.3mm)	150.000	RMT	97.95		14692.50	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
18.9.2	61	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings. This includes jointing of pipes & fittings with one step CPVC solvent cement trenching, refilling and testing of joints complete as per direction of Engineer-in-charge. External work: 18.9.2: 20 mm nominal outer dia. Pipes.	100.000	RMT	107.70		10770.00	
1.1.1	62	Carriage of materials including loading leading unloading stacking or spreading the materials as directed by the Engineer-in-charge. Upto a lead of 2 Km	300.000	CUM	56.40		16920.00	
5.39	63	Extra for carriage of R.M.C. beyond the initial lead of 10 Km. (Rate per Cu.m/KM) 11 KM to 25 KM=15KM therefore 8 x 15 = 120 Cu.m	2000.000	CU.M	20.90		41800.00	
18.65	64	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.	24.000	EACH	133.30		3199.20	
19.4	65	19.4: Providing and fixing SQUARE MOUTH S.W GULLY TRAP GRADE "A" COMPLETE WITH CI GRATING brick masonry chamber with bricks of specified class designation in cement mortar 1:4 (1 cement: 4 coarse sand) embedded in CC 1:5:10 plastering 12mm thk with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement etc and water tight CI cover with frame of 300 x 300mm size (inside), the weight of cover to be not less than 4.5 kg. and frame to be not less than 2.70 kg as per standard design; with FPS bricks and of size and type :						

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE**

ESTIMATE REF NO : CTS/QE/03-08

NAME OF WORK : CONSTRUCTION OF TYPE D 8 UNITS WITH SERVANT QUARTERS IN TOWNSHIP

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
19.4.2.1	65A	150 x 100 mm size, P type with FPS bricks of class designation 75	40.000	EACH	826.97		33078.80	
9.79	66	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers including necessary screws etc. complete (best make of approved quality)			826.97			.00
9.79.3	66A	63mm	32.000	EACH	98.05		3137.60	
19.30	67	Constructing BRICK MASONRY CHAMBER FOR UNDERGROUND CI INSPECTION CHAMBER AND BENDS with 75 class designation bricks in cement mortar 1:5 (1 cement: 5 fine sand) CI cover with frame (light duty) 455 x 610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) RCC top slab with 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate of 20 mm nominal size) foundation concrete 1:5:10 ( 1 cement:5 fine sand:10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete etc.complete as per standard design, of:						
19.30.2.1	67A	Inside dimension 500 x 700 mm & 45 cm. deep for pipe line with one or two inlets: with FPS bricks.	20.000	EACH	3062.59		61251.80	
9.48	68	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.						
9.48.2	68A	Fixed to openings/wooden frames with rawl plugs screws etc.	2400.000	KGS	64.40		154560.00	
11.3.1	69	Cement concrete flooring 1:2:4 ( 1 cement: 2 coarse sand: 4 graded stone						

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.						
11.3.1	69A	40mm thick with 20mm nominal size stone aggregate	100.000	SQ.M	104.89		10489.00	
18.7	70	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end).						
18.7.1	70A	25 mm nominal bore	24.000	EACH	285.00		6840.00	
18.18.2	71	Providing and fixing ball valve (brass) of approved quality (screwed end) 20mm	8.000	EACH	333.25		2666.00	
2.1	72	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.50m in width as well as 10 sq.m in plan including disposal of excavated earth upto 50m and lift upto 1.50m, disposed soil to be levelled and neatly dressed: All kinds of soils	1000.000	SQ.M	20.74		20740.00	
9.76	73	Providing and fixing bright finished brass 100mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc complete (best make of approved quality).	8.000	EACH	332.65		2661.20	
5.18.1	74	Providing precast cement concrete jali 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild steel wire including centring and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits. 50mm thick	10.000	SQ.M	350.70		3507.05	
9.46	75	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass						

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ESTIMATE REF NO : CTS/QE/03-08

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		brackets fixed with C.P. brass screws and wooden plugs etc., wherever necessary complete:						
9.46.2	75A	20mm dia	24.000	RMT	187.80			4507.20
9.46.3	75B	25mm dia	24.000	RMT	299.30			7183.20
12.44	76	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and wighing not less than 440 grams.	16.000	EACH	23.40			374.40
9.82	77	Providing and fixing 150mm bright finished brass door stopper with rubber cushion, screws etc. to suit shutter thickness complete.	8.000	EACH	56.05			448.40
17.29	78	Providing and fixing 100 mm sand cast iron grating for gully, floor Or Nahani trap.	40.000	EACH	16.45			658.00
18.74.2	79	Providing and fixing unplastisised P.V.C. connection pipe with PTMT Nuts of approved quality, colour. 15 mm nominal bore with 45 cm length	32.000	EACH	52.90			1692.80
9.12	80	Extra for providing frosted glass panes 10 Kg/Sqm (4mm thick) inseed of ordinary glass panes 10 Kg/Sqm (4 mm thick) in doors windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	16.000	SQ.M	10.45			167.20

8298367.79

ESCALATION @ 19.00 % 1576689.88

TOTAL ESTIMATED VALUE 9875057.67

CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

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**ESTIMATE**

**ESTIMATE REF NO : CTS/QE/03-08**

**NAME OF WORK : CONSTRUCTION OF TYPE D 8 UNITS WITH SERVANT QUARTERS IN TOWNSHIP**

(Percentage in words

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TOTAL VALUE OF WORK

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**CONTRACTOR/ TENDERER**

**ACCEPTING OFFICER**