

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK :** Name of Work: Fan Testing Station Roof covering in Factory**ESTIMATE REF NO :** CF/CA/01

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
10.2	01	Structural steel work riveted, bolted or welded in builtup sections, trusses and framed work, including cutting, hoisting, fixing in position & applying a priming coat of approved (Zinc Chromate) steel primer all complete.	70000	KGS	10.70	749000.00
12.1	02	Providing CORRUGATED G.S SHEET ROOFING fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia. with bitumen & G.I. limpet washers or with G.I.limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (upto a pitch of 60 degrees) excluding the cost of prulins, rafters and trusses:				
12.1.1	02A	1.00 mm/0.8mm thick with zinc coating not less than 275 gm/m2	2750	SQ.M	108.38	298034.94
13.62.1	03	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and manufacture to give an even shade two or more coats on new work.	70	M.T.	1343.03	94012.10

TOTAL ESTIMATED VALUE 1141047.04

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

(Percentage in words )

TOTAL VALUE OF WORK

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CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : PART I: PROVIDING FITTERS BAR FOUNDATION IN FAN TESTING STATION IN FACTOR****ESTIMATE REF NO : CF/CA/02**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
2.6.1	01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas ( 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.	200	CU.M	101.85	20370.00
2.25	02	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.	150	CU.M	45.70	6855.00
2.7	03	EXCAVATION WORK IN excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 1.5 m in width or 10 sqm on plan ) including dressing of sides and ramming of bottoms,lift upto 1.5 m,including getting out the excavated soil and disposal of surplus excavated soils as directed within a lead of 50 M, in:				
2.7.1	03A	Ordinary rock	300	CU.M	152.60	45780.00
2.7.3	03B	Hard rock requiring blasting prohibited	180	CU.M	325.25	58545.00
4.1	04	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				
4.1.9	04A	CC 1:4:8 (1 cement: 4 fine sand: 8 graded stone aggregate 40 mm nominal size)	10	CU.M	1415.55	14155.50
5.33	05	5.33: Providing & laying in position machine batched, machine mixed and machine vibrated design mix cement	100		2023.60	202360.00

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**ESTIMATE****NAME OF WORK : PART I: PROVIDING FITTERS BAR FOUNDATION IN FAN TESTING STATION IN FACTOR**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of lahying but 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 direction of Engineer-in-charge for M-25 grade reinforced cement concrete by using 410 Kg. of cement per cum of concrete. All work upto floor V level.				
5.9	06	CENTRING and SHUTTERING inlcuding strutting, propping etc and removal of form in all floors; for: .				
5.9.1	06A	Foundations, footings, bases of columns etc. for mass concrete.	275	SQ.M	119.25	32793.75
5.22	07	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending, placing in position and binding all complete at all levels, with: .				
5.22.3	07A	Cold twisted bars/ HYSD bars	30000	KG	6.19	185700.00
6.1	08	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in:				
6.1.2	08A	Cement mortar 1:6 (1 cement: 6 fine sand).	55	CU.M	1798.00	98890.00
10.2	09	Structural steel work riveted, bolted or welded in built up sections, (fixing of fitters bar) including cutting, hoisting, fixing in position & applying a priming coat of approved (Zinc Chromate) steel primer all complete.	100000	KG.	10.70	1070000.00
15.3	10	DEMOLISHING RCC WORK manually/by mechanical means including stacking of steel bars and disposal of	60	CU.M	537.55	32253.00

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**ESTIMATE****NAME OF WORK : PART I: PROVIDING FITTERS BAR FOUNDATION IN FAN TESTING STATION IN FACTOR**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		unserviceable materials within 50 m lead.				
15.43	11	Dismantling including stacking of serviceable material and disposal of unserviceable material within 50 metres lead:				
15.43.1	11A	Water bound macaddam road	65	SQ.M	34.30	2229.50
16.45	12	Providing and fixing in position pre-moulded joint filler in expansion joints, of/ with: .				
16.45.1	12A	Per cm. width (thickness) of joint and in required depth and length.	18	SQ.M	200.00	3600.00
1.1.1	13	Carriage of materials by mechanical means including loading, leading, unloading, stacking etc., such as lime, moorum, building rubbish. Up to 2 KM	2500	CU.M	56.41	141025.00
0293+2206+2	14	Supply and filling of 40mm HBG stone jelly in foundation as directed by the Engineer-in-charge	230	CU.M	753.53	173311.90
MARKET RATE	15	Supply and fixing of 1mm thick Poly ethylene sheet over metal surface to receive concrete bed.	300	SQ.M	12.00	3600.00
5.37	16	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 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 reinforcement including cost of admixtures in recommended proportions as per IS:9103 to accelerate / retard setting of concrete, improve	400	CU.M	4356.50	1742600.00

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**ESTIMATE****NAME OF WORK : PART I: PROVIDING FITTERS BAR FOUNDATION IN FAN TESTING STATION IN FACTOR**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		workability without impairing strength and durability as per direction of the Engineer-in-charge. M-25 grade reinforced cement concrete by using 410 Kg. of cement per cum of concrete. All works up to floor V level. (The basic cost of cement is considered is Rs. 5175 / M.T. and the variation in cement price excess or less by 10% will be reimbursed / recovered provided the the variation is within the contract period specified).				
5.38	17	Extra for carriage of R.M.C. beyond the initial lead of 10 K.M.	400	CU.M	20.00	8000.00

TOTAL ESTIMATED VALUE 3842068.65

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

(Percentage in words )

TOTAL VALUE OF WORK

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : PART II: PROVIDING TEST TRACK FOUNDATIONS NEAR FAN TESTING STATION IN FAC****ESTIMATE REF NO : CF/CA/03**

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) / by 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.	100	CU.M	103.40	10340.00
2.25	02	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.	40	CU.M	45.70	1828.00
2.9	03	EXCAVATION WORK IN FOUNDATION TRENCHES OR DRAINS ( not exceeding 1.5 m in width or 10 sqm on plan ) including dressing of sides and ramming of bottoms,lift upto 1.5 m,including getting out the excavated soil and disposal of surplus excavated soils as directed within a lead of 50 M, in:				
2.9.1	03A	Ordinary rock	100	CU.M	162.55	16255.00
2.9.3	03B	Hard rock where blasting prohibited	70	CU.M	332.45	23271.50
4.1	04	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				
4.1.9	04A	CC 1:4:8 (1 cement: 4 fine sand: 8 graded stone aggregate 40 mm nominal size)	20	CU.M	1415.55	28311.00
5.33	05	5.33.1: Providing & laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for	65	CU.M	2023.60	131534.00

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**ESTIMATE****NAME OF WORK : PART II: PROVIDING TEST TRACK FOUNDATIONS NEAR FAN TESTING STATION IN FAC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		reinforced cement concrete including pumping of concrete to site of laying but 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 impairing strength and durability as per direction of Engineer-in-charge for M-25 grade reinforced cement concrete by using 410Kg. of cement per cum of concrete. All work upto floor V level.						
5.9	06	CENTRING and SHUTTERING including strutting, propping etc and removal of form in all floors; for: .						
5.9.1	06A	Foundations, footings, bases of columns etc., for mass concrete	300	SQ.M	119.25		35775.00	
5.22	07	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending, placing in position and binding all complete at all levels, with: .		KG.				
5.22.3	07A	Cold twisted bars / HYSD bars	26500	KG.	6.19		164035.00	
1.1.1	08	Carriage of materials by mechanical means including loading, leading, unloading, stacking etc., such as lime, moorum, building rubbish. (Upto 2 KM)	230	CU.M	56.41		12974.30	
10.19	09	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete.	2500	KG.	52.05		130125.00	
5.37	10	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 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	200	CU.M	4356.50		871300.00	

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**ESTIMATE****NAME OF WORK : PART II: PROVIDING TEST TRACK FOUNDATIONS NEAR FAN TESTING STATION IN FAC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		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. M-25 grade reinforced cement concrete by using 410 Kg. of cement per cum of concrete. All works up to floor V level. (The basic cost of cement is considered is Rs. 5175 / M.T. and the variation in cement price excess or less by 10% will be reimbursed / recovered provided the the variation is within the contract period specified).				
5.38	11	Extra for carriage of R.M.C. beyond the intial lead of 10 K.M.	200	CU.M	20.00	4000.00

**TOTAL ESTIMATED VALUE 1429748.80****CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%****(Percentage in words )****TOTAL VALUE OF WORK**

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**CONTRACTOR/ TENDERER****ACCEPTING OFFICER**



**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY****ESTIMATE REF NO : CF/CA/04**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
2.1.1	01	Earth work in SURFACE EXCAVATION not exceeding 30 cm. in depth but exceeding 1.5 m in width as well as 10 sqm. on plan including disposal of excavated earth upto 50 M and lift upto 1.5 m, disposed soil to be levelled and neatly dressed IN ALL KINDS OF SOIL	1000	SQ.M	20.74	20740.00
2.8.1	02	Earth work in EXCAVATION by mechanical means (Hydraulic excavator) / manual means in foundations, 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.	510	CU.M	103.40	52734.00
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.	480	CU.M	45.70	21936.00
2.27	04	Supplying and FILLING IN PLINTH WITH RIVER SAND under floors including watering, ramming, consolidating and dressing complete.	106	CU.M	301.50	31959.00
2.32	05	CLEARING GRASS AND REMOVAL OF THE RUBBISH upto a distance of 50 M outside periphery of the area cleared.	940	SQ.M	13.56	12746.40
2.35.2	06	Diluting and injecting chemical emulsion for post-constructional ANTI-TERMITE TREATMENT:- Along external wall below concrete or masonry apron using chemical emulsion @ 2.25 litre per linear metre including drilling and plugging holes etc., with:				

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
2.35.2.1	06A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	620	SQ.M	10.45	6479.00
2.35.3	07	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	07A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	800	SQ.M	48.70	38960.00
2.35.4	08	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	08A	Chlorpyriphos / Lindane E.C 20% with 1% concentration.	192	SQ.M	7.60	1459.20
4.10	09	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)	112	SQ.M	76.81	8602.72
4.1	10	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				
4.1.9	10A	CC 1:4:8 (1 cement: 4 fine sand: 8 graded stone aggregate 40 mm nominal size)	200	CU.M	1415.55	283110.00
5.12	11	Providing hoisting and fixing up to floor five level Precast cement concrete works in STRING OR LACING	.05	CU.M	2913.85	145.69

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RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		COURSES, COPINGS, BED PLATES, ANCHOR BLOCKS, PLAIN WINDOW SILLS, SHELVES, LOUVERS, STEPS, STAIR CASES, etc. in 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size), 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 6 mm thick cement plaster 1:3 (1 cement: 3 fine sand) on exposed surface complete but excluding cost of reinforcement steel with 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size.				
5.1	12	Providing and laying in position specfied grade of reinforced cement concrete excluding the cost of cemtring, shuttering, finishing and reinforcement - All works up to plinth level:				
5.1.2	12A	RCC 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size)	50	CU.M	1660.00	83000.00
5.2.2	13	REINFORCED CEMENT CONCRETE WORK IN WALLS (ANY THICKNESS), INCLUDING ATTACHED PILASTERS, BUTTRESSES, PLINTH AND STRING COURSES, FILLETS, COLUMNS, PILLARS, PIERS, ABUTMENTS, POSTS AND STRUTS, ETC., excluding cost of centring, shuttering, finishing and reinforce- ment, with 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size), at levels: . (NOTE: Floor one level corresponds to plinth level) .				
5.2.2	13A	upto floor V level	61	CU.M	2020.35	123241.35
5.3	14	REINFORCED CEMENT CONCRETE WORK IN BEAMS, suspended floors, roofs having slope up to 15 degree, landings, balconies, shelves, chajjas, lintels,	25	CU.M	2016.25	50406.25

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		bands, plain window sills, staircases and spiral stair cases up to floor five level 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) .				
5.9	15	CENTRING and SHUTTERING including strutting, propping etc and removal of form in all floors; for: .				
5.9.1	15A	Foundations, footings, bases of columns etc. for mass concrete.	57	SQ.M	119.25	6797.25
5.9.6	15B	Columns, pillars, piers, abutments, posts & struts	562	SQ.M	238.40	133980.80
5.9.15	15C	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.	73	SQ.M	119.25	8705.25
5.9.19	15D	Weather shade , chajjas, corbels, edges etc.	48	SQ.M	258.60	12412.80
5.22	16	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending, placing in position and binding all complete at all levels, with: .				
5.22.3	16A	Cold twisted bars / HYSD bars etc.	15000	KG	6.19	92850.00
6.4	17	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 upto floor V level above PLINTH, in:				
6.4.1	17A	Cement mortar 1:4 (1 cement : 4 coarse sand)	5	CU.M	2036.95	10184.75
6.4.2	17B	Cement mortar 1:6 (1 cement : 6 coarse sand)	344	CU.M	2033.65	699575.60
6.13.2	18	HALF BRICK MASONRY WITH FPS BRICK OF CLASS DESIGNATION 75 in super	10	SQ.M	247.68	2476.85

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		structure, above plinth level upto floor five level in cement mortar 1:4 (1 cement: 4 coarse sand), .				
7.1.1	19	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) .	180	CU.M	1411.55	254079.00
9.1	20	Providing WOOD WORK IN FRAMES OF DOORS, WINDOWS, CLERESTORY WINDOWS and other frames, wrought framed and fixed in position, with:				
9.1.1	20A	Second class teak wood	.5	CU.M	52090.00	26045.00
9.1.3	20B	Kiln seasoned and chemically treated hollock wood	.45	CU.M	31399.40	14129.73
9.9	21	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:				
9.9.1	21A	35 mm thick, second class teak wood.	20	SQ.M	1718.30	34366.00
9.12	22	Extra for providing frosted glass panes of 10 kg/sqm (4 mm thick) instead of ordinary glass panes of 10 kg/sqm (4 mm thick) in doors, windows & clerestory window shutters (Area of opening for glass panes excluding protion inside rebate shall be measured) :	10	SQ.M	10.45	104.50
9.53	23	Providing 40 x 5 mm flat IRON HOLD FAST 40 cm. long including fixing to frame with 10 mm dia. bolts, nuts and	148	EACH	55.80	8258.70

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		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)				
9.76	24	Providing and fixing bright finished BRASS 100 mm MORTICE LATCH and LOCK with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	2	EACH	332.65	665.30
21.1	25	Providing and fixing ANODISED ALUMINIUM WORK FOR DOORS, WINDOWS, VENTILATORS AND PARTITIONS with extruded built up standard tubular and other sections of approved make conforming to IS: 733 and IS: 1285, anodised transparent or dyed to require shade according to IS:1868(Minimum anodic coating of grade AC 15),fixed with rawl plugs and screws or with fixing clips,or with expansion hold fastners including necessary filling up of gaps at junctions, at top, bottom and sides with re- quired PVC/neoprene felt etc., Aluminium sections shall be smooth, rust free, straight, mitred & jointed mecha- nically wherever required including cleat angle (38x38x 4.8mm,35/40mm long) aluminium snap beading(Wt 175gms/m) for glazing / panelling, C.P. brass / strainless steel screws, all complete as per drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for seperately), for:				
21.1.1.2	25A	For fixed portionPowder coated aluminium (minimum thickness of powder coating 50 micron).	10	KG	306.30	3063.00
21.1.2.2	25B	For shutters of doors, windows and ventilators including providing & fixing pivots/ hinges (4 Nos.100x	10	KG	326.60	3266.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		75x4mm per door shut. 3 Nos.75x 63x 3.2mm per wind/vent shut.) & making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required (fittings shall be paid for seperately).(minimum thickness of powder coating 50 micron)				
21.3	26	Providing and fixing GLAZING IN ALUMINIUM DOOR, WINDOW, VENTILATOR SHUTTERS AND PARTITIONS ETC. with PVC/neoprene gasket etc complete as per drawings and the directions of Engineer-in-charge.(Cost of aluminium snap beading shall be paid in basic item), with:				
21.3.1	26A	Glass panes of 4.0 mm thickness ( weight not less than 10.0 kg / sqm )	5	SQ.M	554.95	2774.75
9.20	27	Providing & fixing ISI mark FLUSH DOOR SHUTTERS 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 including ISI marked necessary cleats and Stainless Steel butt hinges with necessary C.P. brass screws etc., of thickness 35 MM	18	SQ.M	1473.50	26523.00
9.40.1.1	28	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 .	200	RMT	53.85	10770.00
9.48.2	29	9.48.2: 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	460	KG.	64.40	29624.00

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		complete, and Fixed to openings / wooden frames with rawl plugs screws etc. (no material will be supplied by BHEL for this item)				
9.62 TO 9.6	30	Providing & fixing ISI marked OXIDISED MILD STEEL FITTINGS with necessary nuts & screws etc. as required complete, of type and size:				
9.62.1	30A	Sliding door bolts 300 mm x 16mm	37	EACH	79.60	2945.20
9.63.1	30B	Tower bolts black finish (barrel type) 250mm x 10mm	74	EACH	33.90	2508.60
9.63.3	30C	Tower bolts black finish (barrel type) 150mm x 10mm	10	EACH	23.40	234.00
9.66.1	30D	Handles (confirming to IS 4992) 125MM	37	EACH	10.20	377.40
9.66.2	30E	Handles (confirming to IS 4992) 100MM	10	EACH	7.75	77.50
9.83	31	Providing & fixing IS:3564 marked UNIVERSAL HYDRAULIC DOOR CLOSER with necessary accessories and screws etc. complete of:				
9.83.	31A	Aluminium die cast body tubular type.	2	EACH	610.60	1221.20
9.96 TO 9.10	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 nuts and C.P. brass screws as required etc. complete, of type and size:				
9.96.1	32A	SLIDING DOOR BOLTS: 300 x 16 mm .	37	EACH	158.50	5864.50
9.97.2	32B	TOWER BOLTS (barrel type) 250x10 mm	74	EACH	62.20	4602.80
9.97.4	32C	TOWER BOLTS (barrel type) 150 x 10 mm	10	EACH	42.75	427.50
9.100.1	32D	9.100.1: HANDLES 125 mm .	37	EACH	35.30	1306.10
9.100.2	32E	HANDLES 100 mm .	10	EACH	35.30	353.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
9.101.1	33	HANGING FLOOR DOOR STOPPER: Single rubber stopper, (150 mm long)	37	EACH	19.05	704.85
10.2	34	STRUCTURAL STEEL WORK RIVETED OR BOLTED IN BUILT UP SECTIONS, TRUSSES AND FRAMED WORK, including cutting, hoisting, fixing in position & applying a priming coat of approved (Zinc Chromate) steel primer all complete.	16500	KG	10.70	176550.00
10.11	35	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators side/top/centre hung beedings and all members such as K11B and K12b etc. complete of standard rolled steel sections, joints mitred and flush butt welded and sash bars tenoned and riveted with 15 x 3 mm lugs 10 cm. long embedded in cement concrete blocks 15 x 10 x 10 cms. of 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including fixing of glass panes with glazing clips and special metal-sash putty of approved make, and a priming coat of approved steel primer excluding the cost of metal beading and other fittings except necessary hinges or pivots complete as per approved design.	60	KG	178.90	10734.00
10.6	36	Supplying and fixing ROLLING SHUTTERS of approved make, made of required size M.S. Laths inter- locked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides (25x65mm made from 3.15mm thick M.S. sheet) and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary				

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		27.5cm long wire springs grade No.2 & M.S top cover of required thickness for rolling shutters, with:				
10.6.2	36A	80x1.20 mm M.S laths with 1.20 mm thk top cover	15	SQ.M	965.35	14480.25
10.14	37	Providing and fixing Factory made Pressed Steel Door/ Window Frames of specified type and size, manufactured from commercial mild steel sheet of speci- fied thickness,frame edges folded by 12mm,joints metred and welded & filed smooth, fixing MS lugs 20x3mm & 20cm long embedded with cement concrete blocks 25x10x10cm of 1:3:6 (1 cement: 3 coarse sand: 6 graded stone agregate 20 mm nominal size ), filling & compacting hollow frame with cement mortar 1:6 (1 cement: 6 coarse sand),fixing required threshold/ base-tie of MS angle 25x 25x 3mm or M.S. square 12 x 12 mm (for door frame only), providing and fixing/ welding hinges as specified,making required provisions for fittings and holes for fixing grill and applying a coat of approved(zinc chromate) steel primer after pre-treatment of surface,all complete as directed by the Engineer-in-Charge; frame type				
	37A	(NOTE: 1) Barrel hinges (3Nos,100x19mm per door shutter and 2Nos,58x16 mm per window shutter) required if steel shutter is provided,or 2) Butt hinges (4Nos,100x58x1.9mm per door shutter) to be provided with the inside of steel door frame by making a slit in the frame) Size 105 x 60 mm (+/-1mm) made from 1.25 mm thick (18 gauge) MS sheet, with single rebate to suit the thickness of Door Shutters.	26	R.M	271.65	7062.90
11.4	38	11.4: 52mm thick CEMENT CONCRETE FLOORING WITH "HARDCRETE" CONCRETE HARDENER TOPPING, under layer 40mm	1100	SQ.M	150.32	165347.60

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) laid after applying slurry (@ 2 kg cement/sqm) and top layer 12mm thick "HARDCRETE" concrete hardener consisting of mix 1:2 (1 cement hardener mix: 2 stone aggregate 6mm nominal size) by volume with which HARDCRETE hardening compound of Snowcem India Ltd. or equivalent is mixed @ 2 litre HARDCRETE per 50 Kg. of cement includ- ing finishing with cement slurry mixed with steel floats, rounding of edges and including providing 40 x 4mm glass strips etc. but excluding the cost of nosing of steps etc. complete.				
11.36	39	Providing and fixing 1st quality ceramic tiles conforming to IS:13753 of minimum thickness 5mm of approved 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.	68	SQ.M	492.26	33473.98
11.37	40	Providing and laying ceramic glazed FLOOR tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 13755 of approved make in colours such as white, ivory, grey, fume red-brown, laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including pointing the joints with white cement and matching pigment etc. complete.	38	SQ.M	534.31	20303.95
11.6	41	CEMENT PLASTER SKIRTING (upto 30 cm. height) with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a	30	SQ.M	95.98	2879.40

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		floating coat of neat cement slurry (@ 2 kg cement/ sqm) including rounding of junction with floor wherever required etc., for 18 mm thick				
12.50	42	Supply and fixing of Zinalume Trapizoidal TRIMDEK Profile sheet of 1015mm effective cover width & nominal 28.5mm deep ribs with subtle square flutting in the five pan at nominal 203mm centre to centre. The end rib will be designed for anti-capillary action, to avoid any seepage of water through the lateral overlap. The feed material is manufactured out of nominal 0.50mm total coated thickness (TCT), Hi-tensile steel swithin min. 550 MPa yield strength ,metallic hot dip coated with aluminium-zinc alloy (55% aluminium , 45% zinc) as per AS 1397 - Zinalime AZ 150 (Min. 150gms/sq.mt total on both sides).The sheet shall have brand marking of the manufacturer giving product details on the back of the sheet at every 1meter c/c for confirming genuinity of the material				
	42A	Fixing with necessary suitable imported galvanized carbon steel self drilling & self tapping screws if Buildex of required diameter and lengh as approved all complete with EPDM sealing washer, foam fillers wherever necessary.Fasterners & Clip should be of approved material..The measurement shall be based on actual laid area. Length of sheet will be approximately 12 M. Supply and fixing of Ridges, flashings upto 600mm girth	1220	SQ.M	440.65	537593.00
12.51	43	Providing and fixing pre-coated galvanized steel sheet roofing accessories 0.50mm +/- 5% total coated thickness (TCT) thick zinc coating 120 gsm as per IS 277 in 240 mpa steel grade, 5-7 microns epoxy primer on both sides of the sheet and polyster				

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		top coat 15-18 microns using self drilling / self tapping screws or with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers complete.				
12.51.1	43A	Ridges plain (500 - 600mm)	30	R.M.	458.15	13744.50
12.51.2	43B	Flashings/Aprons (Up to 600mm)	30	R.M	448.15	13444.50
12.51.4	43C	Barge board (up to 300 mm)	20	R.M.	416.90	8338.00
12.37	44	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. 100 mm	5	EACH	65.35	326.75
12.40	45	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.:				
12.40.2	45A	110 mm diameter	12	R.M.	163.40	1960.80
12.42	46	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				

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		lubricant) .				
12.42.1.2	46A	Coupler for 110mm dia	1	EACH	101.65	101.65
12.42.5.2	46B	Bend 87 degree for 110mm dia	4	EACH	134.20	536.80
12.42.6.2	46C	Plain shoe	4	EACH	263.10	1052.40
13.37.1	47	Providing WHITE WASHING with LIME to given an even shade on new work (three or more coats) .	1000	SQ.M	6.75	6750.00
13.41.1	48	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 .	100	SQ.M	41.55	4155.00
13.62.1	49	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and manufacture 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.	200	SQ.M	51.30	10260.00
13.69.1	50	POLISHING ON WOOD WORK with ready made wax polish of approved brand and manufacture on new work.	46	SQ.M	35.80	1646.80
13.1.2	51	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required), of mix 1:6 (1 cement: 6 fine sand)	200	SQ.M	49.00	9800.40
13.2	52	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	52A	1:6 (1 cement: 6 fine sand)	10	SQ.M	56.47	564.73
13.2.2	52B	1:4 (1 cement: 4 coarse sand)	850	SQ.M	56.28	47834.60

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**ESTIMATE****NAME OF WORK : CONSTRUCTION OF NEW FLOW MODEL LAB NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
13.3.1	53	Providing 20mm thick CEMENT PLASTER finished with a floating coat of neat cement. 1:4 (1 cement: 4 fine sand)	50	SQ.M	66.37	3318.41
13.33.1	54	POINTING on STONE WORK with cement mortar 1:3 (1 cement: 3 fine sand), type: Ruled pointing	48	SQ.M	56.44	2709.09
13.46.1	55	Finishing wall with Acrylic Smooth exterior paint of required shade NEW WORK (two or more coats applied @ 1.67 ltr/10 sqm) over and including base coat of water proofing cement applied @ 2.2 kg/10 sqm.	700	SQ.M	50.40	35280.00
17.31	56	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)	4	EACH	493.65	1974.60
17.33	57	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 .	4	EACH	218.80	875.20
17.60	58	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors with Sand cast iron S&S as per IS:3989.	7	EACH	544.30	3810.10
17.1	59	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)	2	EACH	2278.75	4557.50

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		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.				
17.4.1	60	Providing and fixing WHITE VITREOUS CHINA FLAT BACK OR WALL CORNER TYPE LIPPED FRONT URINAL BASIN of 430 x 260 x 350 mm and 340 x 410 x 265 mm sizes, respectively with automatic flushing cistern (of appro- ved make and conforming to IS:7231) with standard flush pipe and C.P. brass spreaders with brass unions & G.I. clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required, with: (NOTE: Ht. of urinal dip top from standing level- 65cm) One urinal basin with 5 litre PVC automatic flushing cistern Parryware/ Hindware/ Seabird/ Orient (Coral)	6	EACH	2005.75	12034.50
17.7.2	61	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.	4	EACH	1188.75	4755.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
17.28.2.1	62	Providing & fixing PVC WASTE PIPE (Min.length 70 cm.) for SINK OR WASH BASIN including PVC waste fittings complete, of type Flexible pipe, 32 mm dia.	2	EACH	46.80	93.60
18.10	63	Providing and fixing GI PIPES complete with GI fittings and clamps, including cutting and making good the walls etc; pipe of nominal bore of: (INTERNAL WORK) (Note: Allowed Variation applicable to indicated wt.)				
18.10.1	63A	15mm dia nominal size	2	R.M.	105.85	211.70
18.10.2	63B	20mm nominal size	2	R.M.	133.85	267.70
18.15.1	64	Providing and fixing BRASS BIB COCK of approved quality; of nominal bore of: (NOTE: Outlet to be around 150 mm from wall face) 15 mm dia. (Min wt 400 grms)	6	EACH	191.70	1150.20
18.16.1	65	Providing & fixing BRASS STOP COCK of approved quality; of nominal bore of: 15 mm dia. nominal bore	5	EACH	191.70	958.50
18.17.1	66	Providing & fixing BRASS GATE VALVE OR FULL WAY VALVE with CI wheel of approved quality (screwed end); of nominal bore of:25 mm dia. (Wt 1077 gm +/-5%)	2	EACH	285.50	571.00
18.64	67	Providing and fixing PTMT SWIVELLING SHOWER ROSE with 15 nominal bore weight not less than 40 gms.	2	EACH	101.95	203.90
19.1	68	Providing, laying & jointing GLAZED STONEWARE PIPES of 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, of: .				
19.1.2	68A	150 mm dia (with gradient 1:100 in general)	50	R.M.	134.92	6745.93

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
19.4	69	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 :				
19.4.2.1	69A	150 x 100 mm size, P type with FPS bricks of class designation 75	3	EACH	827.27	2481.81
19.30	70	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:				
19.30.2.2.1	70A	Inside dimension 500 x 700 mm & 45 cm. deep for pipe line with one or two inlets: with FPS bricks.	2	EACH	3062.59	6125.18
1.1.1	71	Carriage of materials by mechanical transport including loading, unloading, spreading, levelling etc.	120	CU.M	56.00	6720.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		upto a distance of 2 K.M.				
5.37	72	Providing and laying in position readymixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto a10 KMs having continuous agitated mixer, manufactured as per mix designs 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 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, M-25 grade reinforced cement concrete byusing 410 Kg. of cement per cum of concrete. All works upto floor V level. (The basic cost of cement is considered as Rs.5175 per M.T. and the variation in cement price excess / less by 10% will be reimbursed / recovered provided the variation is within the contract period specified). No free issue.	10	CU.M	4356.50	43565.00
5.38	73	Extra for carriage of R.M.C. beyond the initial lead of 10 K.M.	10	CU.M	20.00	200.00

**TOTAL ESTIMATED VALUE 3364345.47****CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%****(Percentage in words )****TOTAL VALUE OF WORK**

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT****ESTIMATE REF NO : CF/CA/12**

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.	300	CU.M	103.40	31020.00
2.25	02	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.	245	CU.M	45.70	11196.50
2.27	03	Supplying and FILLING IN PLINTH WITH RIVER SAND under floors including watering, ramming, consolidating and dressing complete.	85	CU.M	301.50	25627.50
2.28	04	SURFACE DRESSING OF THE GROUND including removing vegetation and inequalities not exceeding 15cm deep and disposal of rubbish, lead upto 50 M and lift upto 1.5 M IN ALL KINDS OF SOIL.	100	SQ.M	5.12	512.00
2.9	05	Earth work 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 and ramming of bottoms,lift upto 1.5 m,including getting out the excavated soil and disposal of surplus excavated soils as directed within a lead of 50 M, in: ORDINARY ROCK	190	CU.M	162.65	30903.50
4.10	06	Providing and laying DAMP PROOF COURSE 40mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 12.5 mm nominal size)	85	SQ.M	76.81	6528.85

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
4.1	07	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				
4.1.9	07A	CC 1:4:8 (1 cement: 4 fine sand: 8 graded stone aggregate 40 mm nominal size)	125	CU.M	1415.55	176943.75
5.33	08	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but 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 direction of Engineer-in-charge for M-25 grade reinforced cement concrete, etc. all work upto floor V level.	40	CU.M	2023.60	80944.00
5.1	09	Providing and laying in position specified grade of REINFORCED CEMENT CONCRETE excluding the cost of centring, shuttering, finishing and reinforcement:- ALL WORK UPTO PLINTH LEVEL, for grade of: .				
5.1.2	09A	RCC 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size)	10	CU.M	1660.00	16600.00
5.1.3	09B	RCC 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	125	CU.M	1702.00	212750.00
5.9	10	CENTRING and SHUTTERING inlcuding strutting, propping etc and removal of form in all floors; for: .				

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
5.9.1	10A	Foundations, footings, bases of columns etc. for mass concrete.	100	SQ.M	119.25	11925.00
5.9.3	10B	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).	145	SQ.M	187.35	27165.75
5.9.5	10C	Lintels, beams, plinth beams, girders, bressummers and cantilevers. (Upto 3.5m floor height). (NOTE:- Floor height to be taken from finished floor level to finished beam bottom).	665	SQ.M	162.65	108162.25
5.9.6	10D	Columns, pillars, piers, abutments, posts & struts	375	SQ.M	238.40	89400.00
5.11.1	11	Extra for additional height in centring, shutt- ering wherever required with adequate bracing, propping etc. including cost of de- shuttering and decentring at all levels, for suspended floors, roofs, landing, beams and balconies; for: (NOTE: Plan area to be measured) (NOTE:- Floor height to be taken from finished floor level to finished slab/ beam bottom). Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).	500	SQ.M	106.20	53100.00
5.18	12	Providing PRECAST CEMENT CONCRETE JALLI in 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 6 mm nominal size) reinforced with 1.6mm dia mild steel wire including centring and shuttering, roughening, cleaning fixing & finishing in cement mortar 1:3(1 cement:3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits ; of:				
5.18.1	12A	50 MM thick	25	SQ.M	350.70	8767.62

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
5.22	13	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending, placing in position and binding all complete at all levels, with: .				
5.22.3	13A	Cold twisted bars / HYSD bars etc. .	21000	KG.	6.19	129990.00
6.1	14	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in:				
6.1.2	14A	Cement mortar 1:6 (1 cement: 6 fine sand)	10	CU.M	1798.00	17980.00
6.5	15	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 in super structure above plinth level up to floor V level in all shapes and sizes in:				
6.4.2	15A	Cement mortar 1:6 (1 cement: 6 fine sand)	470	CU.M	2033.65	955815.50
7.1	16	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 :				
7.1.1	16A	Cement mortar 1:6 (1 cement: 6 coarse sand) .	120	CU.M	1411.55	169386.00
10.6	17	Supplying and fixing ROLLING SHUTTERS of approved make, made of required size M.S. Laths inter- locked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides (25x65mm made from 3.15mm thick M.S. sheet) and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5cm long wire springs grade No.2 & M.S top cover of required thickness				

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		for rolling shutters, with:				
10.6.1	17A	80x1.25 mm M.S laths with 1.25 mm thk top cover	62	SQ.M	1208.45	74923.90
10.8.2	17B	Extra for providing mechanical devise chain and carank operation for operating rolling shutters Exceeding 16.80 Sq.m.	62	SQ.M	538.40	33380.80
10.11	18	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators side/ top/ centre hung with beading and all members such as K11 and K12B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and rivted with 15 x 3 mm lugs, 10 cms. long, embedded in cement concrete blocks 15 x 10 x 10 cms. of 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required				
10.11	18A	including providing and fixing of glass panes (4 mm thick) with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved (Zinc Chromate) steel primer, excluding the cost of metal beading and other fitting except necessary hinges or pivots as required etc. for:	35	KG.	178.90	6261.50
11.4	19	52mm thick CEMENT CONCRETE FLOORING WITH "HARDCRETE" CONCRETE HARDENER TOPPING, under layer 40mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) and top layer 12mm thick "HARDCRETE" concrete hardener consisting of mix 1:2 (1 cement hardener mix: 2 stone aggregate 6mm nominal size) by volume with which HARDCRETE hardening compound is mixed @ 2 litre HARDCRETE per 50 Kg. of	835	SQ.M	166.89	139354.82

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		cement or as per manufacturers specifications. This includes cost of cement slurry, but excluding the cost of nosing steps etc.complete.				
13.37.1	20	Providing WHITE WASHING with LIME to given an even shade on new work (three or more coats) .	2820	SQ.M	6.75	19035.00
13.62.1	21	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and manufacture to give an even shade two or more coats on new work.	300	SQ.M	51.30	15390.00
13.1	22	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required), of mix:				
13.1.2	22A	1:6 (1 cement: 6 fine sand)	2850	SQ.M	49.00	139655.70
13.63.1	23	Providing and Painting with ALUMINIUM PAINT of approved brand and manufacture to give an even shade for two or more coats on new work.	1050	SQ.M	28.60	30030.00
13.2	24	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: 1:6 (1 cement: 6 fine sand)	2820	SQ.M	56.28	158698.32
13.46	25	Finishing wall with Acrylic Smooth exterior paint of required sade for NEW WORK (two or more coats applied @ 1.67 ltr/10 sqm) over and including base coat of water proofing cement applied @ 2.2 kg/10 sqm.	2820	SQ.M	50.40	142128.00
15.3	26	DEMOLISHING RCC WORK manually/ by mechanical means including stacking of steel bars and disposal of unserviceable materials within 50 m lead.	5	CU.M	537.55	2687.75

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
15.7.4	27	DEMOLISHING BRICK WORK manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable materials within 50 m lead, in cement mortar .	10	CU.M	310.75	3107.50
15.2.2	28	DEMOLISHING CEMENT CONCRETE manually/ by mechanical means including disposal of material within 50 meters lead: 1:4:8 or leaner mix.	5	CU.M	226.90	1134.50
15.17.1	29	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in: R.S. Joists	3000	KG.	0.50	1500.00
15.28	30	Dismantling roofing including ridges, hips valleys and gutters etc. and stacking the material within 50 metre lead of				
15.28.2	30A	Asbestos cement sheets	50	SQ.M	11.75	587.50
1.1.1	31	Carriage of materials by mechanical means including loading, leading, unloading, stacking spreading etc. such as lime, murrum, building rubbish. upto 2.00 K.M.	100	CU.M	56.41	5641.00
5.37	32	Providing and laying in position of 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 mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from tansit mixer to site of laying, excluding the cost of centring, shuttering finishing and reinforcement including cost of admimtures 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	100	CU.M	4356.50	435650.00

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR CONSTRUCTION OF STORE SHED FOR BOUGHT OUT ITEMS IN FACT**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		reinforced cement concrete by using 410 Kg of cement per CUM of concrete. All works up to floor V level. (The basic cost of cement considered is Rs. 5175 / M.T. and the variation in cement price excess or less by 10% will be reimbursed / recovered, provided the variation is within the contract period specified in the contract).				
5.38	33	Extra for carriage of R.M.C. beyond the initial lead of 10 K.M.	100	CU.M	20.00	2000.00

**TOTAL ESTIMATED VALUE 3375884.51****CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%****(Percentage in words )****TOTAL VALUE OF WORK**

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**CONTRACTOR/ TENDERER****ACCEPTING OFFICER**

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : PART I: STRUCTURAL WORKS FOR CONSTRUCTION OF STORES SHED FOR BOUGHT (****ESTIMATE REF NO : CF/CA/05**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
10.2	01	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.	60000	KG.	10.70	642000.00
12.50	02	Supply & Installation of pre-coated galvanized iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm +/- 5% total coated thickness (TCT) thick Zinc coating 120 gsm as per IS: 277 in 240 mpa steel grade, 5-7 microns epoxy primer on both sides of the sheet and polyester top coat 15-18 microns Sheet should have protective guard film of 25 microns minimum to avoid scratches while transportation and should be supplied in single length upto 12 metres or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling / self tapping screws of size (5.5 x 55mm) with EPDM seal or with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead 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.	1000	SQ.M	440.65	440650.00
12.51.1/.2	03	Providing and fixing pre-coated galvanized steel sheet roofing accessories 0.50 mm +/- 5% total coated thickness (TCT) thick Zinc coating 120 gsm as per IS: 277 in 240 mpa steel grade, 5-7 microns epoxy coating on both sides of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws or with polymer coated J or L hooks, bolts and nuts and or G.I. seam bolts and nuts, G.I. plain and bitumen washers complete Ridges/Flashings upto 600 mm	50	RMT	453.15	22657.50

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : PART I: STRUCTURAL WORKS FOR CONSTRUCTION OF STORES SHED FOR BOUGHT (**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
13.63.1	04	Painting with aluminium paint of approved brand and manufacture to give an even shade. TWO OR MORE COATS on new work. (for structural steel of average area of 26.18 sq.m/m.t.)	1600	SQ.M	28.60	45760.00
13.62.1	05	Painting with Synthetic enamel paint of approved brand and manufacture to give an even shade. TWO OR MORE COATS on new work. (for structural steel of average area of 26.18 sq.m/m.t.)	300	SQ.M	51.30	15390.00

**TOTAL ESTIMATED VALUE 1166457.50****CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%****(Percentage in words )****TOTAL VALUE OF WORK**

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**CONTRACTOR/ TENDERER****ACCEPTING OFFICER**

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY****ESTIMATE REF NO : CF/CA/09**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
2.6.1	01	Earth work in EXCAVATION by mechanical means (Hydraulic excavator) / manual means OVER AREAS (exceeding 30 cm in depth,1.5m in width as well as 10 sqm on plan) inlcuding disposal of excavated earth,lead upto 50m and lift upto 1.5 m, disposed earth to be levelled & neatly dressed IN ALL KINDS OF SOIL.	2025	CU.M	101.85	206246.25
2.8.1	02	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.	210	CU.M	103.40	21714.00
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.	2250	CU.M	45.70	102825.00
2.27	04	Supplying and FILLING IN PLINTH WITH RIVER SAND under floors including watering, ramming, consolidating and dressing complete.	1020	CU.M	301.50	307530.00
2.7.1	05	Earth work in excavation over areas (exceeding 30 cm in depth, 1.50m in width as well as 10 sq.m on plan) including disposal of excavated earth, lead upto 50m and lilft upto 1.5m, disposed earth to be levelled and neatly dressed (IN ORDINARY ROCK):	800	CU.M	152.60	122080.00
2.11	06	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.50m, but not exceeding 3.00m. (Rate is over corresponding basic item for depth	1925	CU.M	135.46	260760.50

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		upto 1.50m).				
2.12	07	Extra for excavating trenches for pipes, cables, etc., in all kinds of soil for a depth exceeding 3m in depth, but not exceeding 4.5m. (Rate is over corresponding basic item for depth upto 1.50 metre).	1390	CU.M	346.29	481343.10
2.14	08	Extra for excavating trenches for pipes, cables etc. in ordinary/hard rock exceeding 1.50m in depth but not exceeding 3.00m. (Rate is over corresponding basic item for depth upto 1.50 metre).	800	CU.M	167.86	134288.00
4.11	09	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)	225	SQ.M	95.17	21413.25
4.1	10	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				
4.1.9	10A	CC 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size)	2430	CU.M	1415.55	3439786.50
5.37	11	Providing & 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 20 Kms. 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 mixture for laying but 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 impairing strength and durability as per direction of Engineer-in-charge	50	CU.M	4356.50	217825.00

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		for M-25 grade reinforced cement concrete by using 410 Kg. of cement per CUM of concrete. All work upto plinth level. No cement will be issued free of cost for this item. (The basic cost of cement is considered is Rs. 245 per bag and price variation beyond 10% shall be reimbursed at actuals).				
5.1	12	Providing and laying in position specified grade of REINFORCED CEMENT CONCRETE excluding the cost of centring, shuttering, finishing and reinforcement:- ALL WORK UPTO PLINTH LEVEL, for grade of: .				
5.1	12A	RCC 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	1020	CU.M	1702.00	1736040.00
5.9	13	CENTRING and SHUTTERING including strutting, propping etc and removal of form in all floors; for: .				
5.9.1	13A	Foundations, footings, bases of columns Pockets etc. for mass concrete.	1300	SQ.M	119.25	155025.00
AGT. 19/200'	13B	for pockets	40	SQ.M	547.00	21880.00
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 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) .	24	CU.M	2913.85	69932.40
5.22	15	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending,				

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**BHARAT HEAVY ELECTRICALS LIMITED**

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RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		placing in position and binding all complete at all levels, with: .				
5.22.3	15A	Cold twisted bars / HYSD bars etc. .	75200	KG.	6.19	465488.00
6.1.2	16	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in Cement mortar 1:6 (1 cement: 6 fine sand).	450	CU.M	1798.00	809100.00
6.5	17	Extra for brick work in superstructure above floor V level for each four floors or part thereof by mechanical means by lifting material using mobile crane.	450	CU.M	190.00	85500.00
7.1	18	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 :	310	CU.M	1411.55	437580.50
11.4	19	52mm thick CEMENT CONCRETE FLOORING WITH "HARDCRETE" CONCRETE HARDENER TOPPING, under layer 40mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) laid after applying slurry (@ 2 kg cement/sqm) and top layer 12mm thick "HARDCRETE" concrete hardener consisting of mix 1:2 (1 cement hardener mix: 2 stone aggregate 6mm nominal size) by volume with which HARDCRETE hardening compound of Snowcem India Ltd. or equivalent is mixed @ 2 litre HARDCRETE per 50 Kg. of cement includ- ing finishing with cement slurry mixed with steel floats, rounding of edges and including providing 40 x 4mm glass strips etc. but excluding the cost of nosing of steps etc. complete.	6800	SQ.M	166.89	1134865.60

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BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
13.37.1	20	Providing WHITE WASHING with LIME to given an even shade on new work (three or more coats) .	2250	SQ.M	6.75	15187.50
13.1.2	21	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required), of mix 1:6 (1 cement: 6 fine sand)	3800	SQ.M	49.00	186207.60
13.46	22	Finishing wall with Acrylic Smooth exterior paint of required sade for NEW WORK (two or more coats applied @ 1.67 ltr/10 sqm) over and including base coat of water proofing cement "Snowcem Plus" or equivalent applied @ 2.2 kg/10 sqm.	2250	SQ.M	50.40	113400.00
15.2	23	DEMOLISHING CEMENT CONCRETE including disposal of material within 50 meters lead:				
15.2.1	23A	1:3:6 or richer mix.	40	CU.M	368.45	14738.00
15.2.2	23B	1:4:8 or leaner mix.	50	CU.M	226.90	11345.00
16.1	24	PREPARATION OF SUBGRADE with power road roller of 8 to 12 tonne capacity after excvavating earth to an average of 22.5 cm. depth, dressing to camber and consolidating with road roller including making good the undulations etc. and disposal of surplus earth lead upto 50 mtrs.	6500	SQ.M	33.90	220350.00
19.6	25	Providing and laying NON-PRESSURE NP2 CLASS (LIGHT DUTY) RCC PIPES with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc . complete:				
19.6.5	25A	450mm dia R.C.C pipe	500	RMT	487.12	243565.00
19.30	26	Constructing BRICK MASONRY CHAMBER FOR UNDERGROUND CI INSPECTION CHAMBER AND	64	EACH	2680.20	171532.80

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		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 UPTO 45 CM DEEP FOR SINGLE PIPE LINE:				
19.31	27	Extra for depth beyond 45 cm of brick masonry chamber for 455 x 610mm size.	64	EACH	1394.99	89279.36
10.19	28	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete	6000	KG.	16.98	101850.00
DATA	29	Grouting the holding down bolts and underneath the base plates etc., after alignment with non-shrink free flow grout mix of SHRINKOMP 30 (ACC's make) or equivalent as per standard specifications and instructions of Engineer-in-charge. Rate to include charges for cleaning the sleeves or pockets and other incidental charges, tools and plants etc., complete.	5	CU.M	40422.55	202112.75
5.37	30	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 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	750	CU.M	4356.50	3267375.00

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR ROLL FORMING BAY NEAR SHOT BLASTING ROOM IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		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. M-25 grade rreinforced cement concrete by using 410 Kg. of cement per cum of concrete. All works up to floor V level. (The basic cost of cement is considered is Rs. 5175 / M.T. and the variation in cement price excess or less by 10% will be reimbursed / recovered provided the the variation is within the contract period specified).				
5.38	31	Extra for carriage of R.M.C. beyond the initial lead of 10 K.M.	750	CU.M	20.00	15000.00

TOTAL ESTIMATED VALUE 14883166.11

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

(Percentage in words )

TOTAL VALUE OF WORK

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CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC****ESTIMATE REF NO : CF/CA/10**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
2.6.1	01	Earth work in EXCAVATION by mechanical means (Hydraulic excavator) / manual means OVER AREAS (exceeding 30 cm in depth,1.5m in width as well as 10 sqm on plan) inlcuding disposal of excavated earth,lead upto 50m and lift upto 1.5 m, disposed earth to be levelled & neatly dressed IN ALL KINDS OF SOIL.	2025	CU.M	101.85	206246.25
2.8.1	02	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.	210	CU.M	103.40	21714.00
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.	2250	CU.M	45.70	102825.00
2.27	04	Supplying and FILLING IN PLINTH WITH RIVER SAND under floors including watering, ramming, consolidating and dressing complete.	1020	CU.M	301.50	307530.00
2.7.1	05	Earth work in excavation over areas (exceeding 30 cm in depth, 1.50m in width as well as 10 sq.m on plan) including disposal of excavated earth, lead upto 50m and lilft upto 1.5m, disposed earth to be levelled and neatly dressed (IN ORDINARY ROCK):	800	CU.M	152.60	122080.00
2.11	06	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.50m, but not exceeding 3.00m. (Rate is over corresponding basic item for depth	1925	CU.M	135.46	260760.50

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		upto 1.50m).				
2.12	07	Extra for excavating trenches for pipes, cables, etc., in all kinds of soil for a depth exceeding 3m in depth, but not exceeding 4.5m. (Rate is over corresponding basic item for depth upto 1.50 metre).	1390	CU.M	346.29	481343.10
2.14	08	Extra for excavating trenches for pipes, cables etc. in ordinary/hard rock exceeding 1.50m in depth but not exceeding 3.00m. (Rate is over corresponding basic item for depth upto 1.50 metre).	800	CU.M	167.86	134288.00
4.11	09	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)	225	SQ.M	95.17	21413.25
4.1	10	Providing and laying in position CEMENT CONCRETE of specified grade excluding the cost of centring and shuttering for ALL WORKS UPTO PLINTH LEVEL, with:				
4.1.9	10A	CC 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size)	1400	CU.M	1415.55	1981770.00
5.33	11	Providing & laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping concrete to site of laying but 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 impairing strength and durability as per direction of Engineer-in-charge for M-25 grade reinforced cement concrete by using 410 Kg. of cement per CUM of concrete. All work upto plinth level.	100	CU.M	2023.60	202360.00

CONTRACTOR/ TENDERER

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
5.1	12	Providing and laying in position specified grade of REINFORCED CEMENT CONCRETE excluding the cost of centring, shuttering, finishing and reinforcement:- ALL WORK UPTO PLINTH LEVEL, for grade of: .				
5.1	12A	RCC 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	1400	CU.M	1702.00	2382800.00
5.9	13	CENTRING and SHUTTERING including strutting, propping etc and removal of form in all floors; for: .				
5.9.1	13A	Foundations, footings, bases of columns Pockets etc. for mass concrete.	1800	SQ.M	119.25	214650.00
AGT 19/2007	13B	for pockets	20	SQ.M	547.00	10940.00
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 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) .	24	CU.M	2913.85	69932.40
5.22	15	REINFORCEMENT FOR RCC WORK including straightening, cutting, bending, placing in position and binding all complete at all levels, with: .				
5.22.3	15A	Cold twisted bars / HYSD bars etc. .	87200	KG.	6.19	539768.00
6.1.2	16	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in Cement mortar 1:6 (1 cement: 6 fine sand).	450	CU.M	1798.00	809100.00

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
6.5	17	Extra for brick work in superstructure above floor V level for each four floors or part thereof by mechanical means by lifting material using mobile crane.	450	CU.M	190.00	85500.00
7.1	18	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 :	310	CU.M	1411.55	437580.50
11.4	19	52mm thick CEMENT CONCRETE FLOORING WITH "HARDCRETE" CONCRETE HARDENER TOPPING, under layer 40mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) laid after applying slurry (@ 2 kg cement/sqm) and top layer 12mm thick "HARDCRETE" concrete hardener consisting of mix 1:2 (1 cement hardener mix: 2 stone aggregate 6mm nominal size) by volume with which HARDCRETE hardening compound of Snowcem India Ltd. or equivalent is mixed @ 2 litre HARDCRETE per 50 Kg. of cement includ- ing finishing with cement slurry mixed with steel floats, rounding of edges and including providing 40 x 4mm glass strips etc. but excluding the cost of nosing of steps etc. complete.	6800	SQ.M	166.89	1134865.60
13.37.1	20	Providing WHITE WASHING with LIME to given an even shade on new work (three or more coats) .	2250	SQ.M	6.75	15187.50
13.1.2	21	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required), of mix 1:6 (1 cement: 6 fine sand)	3800	SQ.M	49.00	186207.60

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
13.46	22	Finishing wall with Acrylic Smooth exterior paint of required sade for NEW WORK (two or more coats applied @ 1.67 ltr/10 sqm) over and including base coat of water proofing cement "Snowcem Plus" or equivalent applied @ 2.2 kg/10 sqm.	2250	SQ.M	50.40	113400.00
15.2	23	DEMOLISHING CEMENT CONCRETE including disposal of material within 50 meters lead:				
15.2.1	23A	1:3:6 or richer mix.	40	CU.M	368.45	14738.00
15.2.2	23B	1:4:8 or leaner mix.	50	CU.M	226.90	11345.00
16.1	24	PREPARATION OF SUBGRADE with power road roller of 8 to 12 tonne capacity after excvavating earth to an average of 22.5 cm. depth, dressing to camber and consolidating with road roller including making good the undulations etc. and disposal of surplus earth lead upto 50 mtrs.	6500	SQ.M	33.90	220350.00
19.6	25	Providing and laying NON-PRESSURE NP2 CLASS (LIGHT DUTY) RCC PIPES with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc . complete:				
19.6.5	25A	450mm dia R.C.C pipe	500	RMT	487.12	243559.00
19.30	26	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	64	EACH	2680.20	171532.80

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		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 UPTO 45 CM DEEP FOR SINGLE PIPE LINE:				
19.31	27	Extra for depth beyond 45 cm of brick masonry chamber for 455 x 610mm size.	64	EACH	1394.99	89279.36
10.19	28	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete	6000	KG.	16.98	101850.00
DATA	29	Grouting the holding down bolts and underneath the base plates etc., after alignment with non-shrink free flow grout mix of SHRINKOMP 30 (ACC's make) or equivalent as per standard specifications and instructions of Engineer-in-charge. Rate to include charges for cleaning the sleeves or pockets and other incidental charges, tools and plants etc., complete.	5	CU.M	40422.55	202112.75
5.37	30	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 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 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. M-25 grade reinforced cement concrete by using 410 Kg. of cement per cum of concrete.	600	CU.M	4356.50	2613900.00

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CIVIL WORKS FOR FABRICATION BAY NEAR MATERIAL PREPARATION SHOP IN FACTC**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		All works up to floor V level. (The basic cost of cement is considered is Rs. 5175 / M.T. and the variation in cement price excess or less by 10% will be reimbursed / recovered provided the the variation is within the contract period specified).				
5.38	31	Extra for carriage of R.M.C. beyond the initial lead of 10 K.M.	600	CU.M	20.00	12000.00

**TOTAL ESTIMATED VALUE 13522928.61****CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%****(Percentage in words )****TOTAL VALUE OF WORK**

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**CONTRACTOR/ TENDERER****ACCEPTING OFFICER**

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY****ESTIMATE REF NO : CF/CA/13**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RS RATE P	RS AMOUNT P
2.31	01	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.	50	SQ.M	2.64	132.00
2.32	02	Clearing grass and removal of rubbish upto a distance of 50m outside the periphery of the area cleared.	2000	SQM	1.36	2720.00
2.28.1	03	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.	10	SQ.M	5.12	51.20
2.1.1	04	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.	10	SQ.M	20.74	207.40
2.6.1	05	Earthwork in excavation over areas (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.	10	CUM	101.85	1018.50
2.9.1	06	Earthwork in excavation over areas not exceeding 1.5m in width or 10sqm on plan including dressing of sides and ramming of booms lift up to 1.5m including getting out of the excavated soil and disposal of surplus excavated earth as directed with in a lead of 50m - For Ordinary rock..	25	CUM	162.65	4066.25
2.8.1	07	Earthwork in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm	180	CUM	103.40	18612.00

**CONTRACTOR/ TENDERER****ACCEPTING OFFICER**

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		on plan) including dressing of sides and ramming of bottoms. lift up to 1.5m including getting out the excavated soil and disposal of surplus excavated soil as directed with in a lead of 10m - For all kinds of soil.				
2.26	08	Extra for every additional lift of 1.5m or part thereof in				
2.26.1	08A	All kinds of soil	10	CUM	18.90	189.00
2.26.2	08B	Ordinary or hard rock	5	CUM	33.85	169.25
2.34.1	09	Supplying chemical emulsion in sealed containers including delivery as specified - Chlorpyriphos / Lindane emulsifiable concentrate of 20% with 1% concentration	50	LIT	174.30	8715.00
2.35.2.1	10	Diluting and injecting chemical emulsion for POST CONSTRUCTIONAL ANTI TERMITE TREATMENT (excluding the 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 Chlorpyriphos / Lindane E.C 20% with 1% concentration.	300	SQ.M	10.45	3135.00
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,				
4.1.8	11A	with CC 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40 mm nominal size)	50	CUM	1568.40	78420.00
4.1.5	11B	with CC 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)	125	CUM	1651.50	206437.50

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
4.10	12	Providing and laying DAMP PROOF COURSE 40MM thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)	130	SQ.M	76.81	9985.30
6.1.2	13	Brick work with FPS BRICKS OF CLASS DESIGNATION 75 IN FOUNDATION AND PLINTH, in Cement mortar 1:6 (1 cement: 6 fine sand)	60	CUM	1798.00	107880.00
6.4.2	14	Providing brick work with locally available best bricks from approved source in cement mortar 1:6 (1 cement : 6 fine sand). Rate to include cost of labour, scaffolding charges, material and curing etc., complete. Bricks shall be of approved quality and grade as approved by the Engineer in charge. in super structure above plinth level up to floor V level in all shapes and sizes.	295	CUM	2033.65	599926.75
6.13.2	15	Extra for half brick masonry in superstructure above plinth level upto floor V level	30	SQ.M	247.68	7430.54
6.12.2	16	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 corresponds to plinth level) - Foundation and plinth	10	SQ.M	215.23	2152.35
2.27	17	Supplying and filling in plinth with good river sand under floors including watering, ramming, consolidating and dressing complete.	160	CUM	301.50	48240.00
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.	70	CUM	45.70	3199.00
5.1	19	Providing and laying in position specified grade of reinforced cement				

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) excluding the cost of centring, shuttering, finishing and reinforcement .				
5.1.3	19A	All works upto plinth level	5	CUM	1702.00	8510.00
5.2.3	19B	All works from plinth level upto floorVlevel	15	CUM	2062.40	30936.00
5.9	20	CENTRING and SHUTTERING inlcuding strutting, propping etc and removal of form in all floors; for: .				
5.9.1	20A	Foundations,footings, bases of columns etc. for mass concrete	520	SQ.M	119.25	62010.00
5.9.3	20B	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).	250	SQ.M	187.35	46837.50
5.9.5	20C	Lintels, beams, plinth beams, girders, cantilevers etc.,	70	SQ.M	162.65	11385.50
5.9.19	20D	Weather shade , chajjas, corbels, edges etc.	25	SQ.M	258.60	6465.00
5.9.14	20E	Extra for shuttering in circular work (20% of respective centering and shuttering items)	500	SQ.M	35.40	17700.00
5.9.13	20F	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards.	20	SQ.M	285.55	5711.00
13.2.2	21	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: 1:6 (1 cement: 6 fine sand)	1570	SQ.M	56.28	88353.32
13.1.2	22	Providing 12mm thick CEMENT PLASTER (including providing necessary plaster grooves wherever required) of mix:	470	SQ.M	48.90	22983.94

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		1:6 (1 cement: 6 fine sand)				
13.16.1	23	Providing smooth finishing to the exposed surfaces of RCC/ CC works and ceilings with 6 mm thick CEMENT PLASTER of mix 1:3 (1 cement: 3 fine sand) .	450	SQ.M	43.14	19412.73
5.42/84/200:	24	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering, finishing and reinforcement, including admixtures in recommended proportions (as per IS9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability as per direction of Engineer-in-charge - M20 grade reinforced cement concrete.				
5.42.1/84/20	24A	All works upto plinth level	10	CUM	2497.38	24973.80
5.42.2/84/20	24B	All works from plinth level upto floorVlevel	105	CUM	2696.84	283168.20
5.33	25	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centring, shuttering, finishing and reinforcement, including 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 Engineer-in-charge - M25 grade reinforced cement concrete by using 410 Kg of cement per cum of concrete. All work up to floor V level.	10	CUM	2023.60	20236.00

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
5.37	26	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 continous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of RMC from transit mixer to site of laying excluding the cost of centring, shuttering, finishing and reinforcement, including 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 Engineer-in-charge - M25 grade reinforced cement concrete by using 410 Kg of cement per cum of concrete. All work up to floor V level.	10	CUM	2232.70	22327.00
5.3	27	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 five level.	5	CUM	2016.25	10081.25
4.5.1	28	Providing and fixing up to floor five lecel Precast cement concrete works in 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 6 mm thick cement plaster 1:3 (1 cement: 3 fine sand) on exposed surface complete but	5	CUM	2845.95	14229.75

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**BHARAT HEAVY ELECTRICALS LIMITED**

BOILER AUXILIARIES PLANT

RANIPET - 632406

**ESTIMATE****NAME OF WORK : CONSTRUCTION OF ELECTRONIC SHOP NEAR R & D IN FACTORY**

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		excluding cost of reinforcement steel with 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size.				
5.1	29	Providing and laying in position specfied grade of reinforced cement concrete excluding the cost of cemtring, shuttering, finishing and reinforcement - All works up to plinth level:				
5.1.2	29A	RCC 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size)	7	CUM	1660.00	11620.00
5.2	30	REINFORCED CEMENT CONCRETE WORK IN WALLS (ANY THICKNESS), INCLUDING ATTACHED PILASTERS, BUTTRESSES, PLINTH AND STRING COURSES, FILLETS, COLUMNS, PILLARS, PIERS, ABUTMENTS, POSTS AND STRUTS, ETC., excluding cost of centring, shuttering, finishing and reinforce- ment, with 1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size), at levels: . (NOTE: Floor one level corresponds to plinth level) .				
5.2.2	30A	Upto floor five level	5	CUM	2020.40	10102.00
5.22.3	31	REINFORCEMENT FOR RCC WORK including straightening,cutting, bending, placing in position and binding all complete at all levels, with: Cold twisted bars / HYSD bars .	11800	KGS	6.19	73042.00
12.34/139/21	32	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	52	CUM	272.85	14188.20

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
12.20	33	Providing and laying pressed clay tiles (as per approved pattern 20mm nominal thickness and of approved size) on roofs jointed with cement mortar 1:4 ( 1 cement : 4 coarse sand) mixed with 2% of integral water proofing compound laid over a bed of 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete.	520	SQ.M	288.24	149886.46
8.2.2.2	34	Providing and fixing 18 mm thick mirror polished, machine cut for kitchen platforms ,vanity counters facias and similar locations of required size of approved shade ,colour and texture laid 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 levels - For granite black of slabs over 0.50 sqm.	5	SQ.M	2543.65	12718.25
8.3.2	35	Extra for providing edge moulding to 18 mm thick marble stone counters,Vanities etc., over the above item including machine polishing to edge to give hogh gloss finish etc., complete as per design approved by Engineer-in-Chage. Granite work .	15	RM	97.60	1464.00
11.36	36	Providing and fixing 1st quality ceramic glazzed wall tiles conforming to IS:15622 of minimum thickness 5mm of approved 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.	90	SQ.M	492.26	44303.80

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
11.39	37	Providing and laying rectified glazed ceramic floor tiles 300x300mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 15622 of approved make in colours white, ivory, grey, fume red brown, laid on 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete.	10	SQ.M	695.56	6955.64
	38	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				
12.40.1	38A	75 mm diameterSingle socketed pipes	5	RM	95.00	475.00
12.40.2	38B	110 mm diameter Single socketed pipes	15	RM	163.40	2451.00
12.42.1	38C	75mm coupler	8	EACH	81.40	651.20
12.42.1.2	38D	110 mm coupler	30	EACH	101.65	3049.50
12.42.3.1	38E	I) 75mx75x75mm Tee with door	4	EACH	177.45	709.80
12.42.3.2	38F	I)110mx110x110mm Tee with door	10	EACH	260.70	2607.00
12.42.4.1	38G	I) 75mx75x75mm Tee without door	3	EACH	157.70	473.10
12.42.4.2	38H	Single tee without door 110x110x110 mm	5	EACH	208.45	1042.25
12.42.5.1	38I	I) 75mm bend	5	EACH	88.40	442.00
12.42.5.2	38J	ii)110 mm bend	16	EACH	134.20	2147.20
12.42.6.2	38K	110 mm shoe	16	EACH	263.10	4209.60
13.37.1	39	Providing WHITE WASHING with LIME to given an even shade on new work (three or more coats) .	500	SQ.M	6.75	3375.00
13.47.1	40	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone	1200	SQ.M	60.10	72120.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		additives of required shade - For NEW work (Two or more coats applied @1.43 Ltr / 10 Sqm) over existing cement paint surface.				
13.41.1	41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade - For New work (two or more coats) over and including priming coat with cement primer	1050	SQ.M	41.55	43627.50
16.24/175/20	42	Providing and fixing factory made P.V.C. door frame manufactured by M/s Rajshri or equivalent of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 nos. of 150mm long brackets of 15x15mm M.S. square tube, the vertical door profiles to be reinforced with 19x19mm M.S. square tube of 19 gauge, PEDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. scfrews of 65/100 mm size complete as per manufaacturers specification and direction of Engineer-in-charge.	55	RM	385.20	21186.00
16.25/176/20	43	Providing and fixing 30mm thick factory made PVC rigid foam panelled door shutters manufactured by M/s Rajshri or equivalent made from M.S. tube of 19 gauge thickness, size 19x19mm for styles and 15x15mm for top and bottom rails, covered with heat moulded PVC "C" channel of 5mm thick sheet and 30x50mm wide to form styles and 5mm thick and 75mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 5mm thick, 20mm wide cross PVC sheet as gap insert for top rail and bottom rail, panelling of 5mm thick PVC sheet fitted in the M.S. frame welded/sealed to the styles and rails with 5x30mm	17	SQ.M	2745.70	46676.90

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		PVC sheet beeding on either side and joined together with solvent cement adhesive etc., complete as per manufacturers specification and direction of Engineer-in-charge fixed to frames with 4 Nos. M.S. Powder coated but hinges (for W.C. and bath room shutters).				
21.1	44	Providing and fixing ANODISED ALUMINIUM WORK FOR DOORS, WINDOWS, VENTILATORS AND PARTITIONS with extruded built up standard tubular and other sections of approved make conforming to IS: 733 and IS: 1285, anodised transparent or dyed to require shade according to IS:1868(Minimum anodic coating of grade AC 15),fixed with rawl plugs and screws or with fixing clips,or with expansion hold fastners including necessary filling up of gaps at junctions, at top, bottom and sides with re- quired PVC/neoprene felt etc., Aluminium sections shall be smooth, rust free, straight, mitred & jointed mecha- nically wherever required including cleat angle (38x38x 4.8mm,35/40mm long) aluminium snap beading(Wt 175gms/m) for glazing / panelling, C.P. brass / strainless steel screws, all complete as per drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for seperately), for:				
21.1.1.2	44A	For fixed portionPowder coated aluminium (minimum thickness of powder coating 50 micron).	40	KG	306.30	12252.00
21.1.2.2	44B	For shutters of doors, windows and ventilators including providing & fixing pivots/ hinges (4 Nos.100x 75x4mm per door shut. 3 Nos.75x 63x 3.2mm per wind/vent shut.) & making provision for fixing of fittings wher-	46	KG	326.60	15023.60

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		ever required including the cost of PVC/neoprene gasket required (fittings shall be paid for seperately) - Powder coated aluminium (minimum thickness of powder coating of grade AC 1).				
9.96/.97/.11	45	Providing & fixing ISI marked Aluminium FITTINGS with necessary nuts & screws etc. as required complete, of type and size:				
9.96.1	45A	Tower bolts 300 x 16 mm	22	EACH	158.50	3487.00
9.97.2	45B	TOWER BOLTS 250x10 mm	20	EACH	62.20	1244.00
9.97.4	45C	TOWER BOLTS 150 x 10 mm	24	EACH	42.75	1026.00
9.100.1	45D	HANDLES : 125 mm .	40	EACH	48.80	1952.00
9.100.2	45E	HANDLES : 100 mm .	24	EACH	35.30	847.20
9.101.1	46	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:9.223.1: HANGING FLOOR DOOR STOPPER: Single rubber stopper, (150 mm long)	11	EACH	19.05	209.55
21.3.1	47	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc., with PVC / Neoprene gasket etc, complete as per the architectural drawings and the directions of Engineer in charge (Cost of aluminium snap beading shall be paid in basic item) - With float glass panes of 4.0 mm thickness.	46	SQ.M	554.95	25527.70
17.1.1	48	Providing and fixing water closet squatting pan (Indian type W.C.Pan) with 100mm sand cast iron P or S trap, 10 litre low level with PVC flushing cistern with manually controlled device (handle lever), conforming to	4	EACH	2304.65	9218.60

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		IS :7231 with all fittings and fixtures complete including cutting and making good the walls and floors wherever required. - W.C.Pan with ISI marked white solid plastic seat and lid.						
17.2.1	49	Providing and fixing white vitreous china pedestal type water closet (European type W.C.Pan) with seat and lid,10 litre low level with PVC 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. W.C.Pan with ISI marked black solid plastic seat and lid.	4	EACH	2152.50		8610.00	
17.31	50	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	2	EACH	493.65		987.30	
18.15.1	51	Providing and fixing BRASS BIB COCK of approved quality; of nominal bore of: (NOTE: Outlet to be around 150 mm from wall face) - 15 mm dia. (Min wt 400 grms)	5	EACH	191.70		958.50	
18.52.1	52	Providing and fixing CP brass stop cock (concealed) of standard design and of approved make confirming to IS : 8931 - for 15mm nominal bore.	3	EACH	262.55		787.65	
18.16.2	53	Providing and fixing CP brass stop cock of approved quality 20mm nominal bore.	3	EACH	235.20		705.60	
18.17.1	54	Providing and fixing gun metal gate valve of 25mm nominal bore with CI wheel of approved quality (screwed end)	2	EACH	285.50		571.00	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
18.74.2	55	Supplying and fixing flexible hose connector of 15mm nominal bore with 45cm length	10	EACH	52.90		529.00	
18.10	56	Providing and fixing GI pipes complete with GI fittings and clamps, including cutting and making good the walls etc., (internal work)						
18.10.1	56A	15mm dia nominal bore	3	RM	105.85		317.55	
18.10.2	56B	20mm dia nominal bore	60	RM	133.85		8031.00	
18.10.3	56C	25mm dia nominal bore	10	RM	179.65		1796.50	
18.16	57	Providing and fixing C.P.brass stop cock/Push cock of approved quality						
18.16.2	57A	15mm dia nominal bore	4	EACH	191.70		766.80	
17.71	58	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less than 105 gms (Prayag or equivalent)	2	EACH	164.65		329.30	
17.33	59	Providing and fixing 600 X 120 x 5mm glass shelf with edges round of supported on anodised aluminium angle frame with CP brass brackets and guard rail complete fixed with 40mm long screws, rawl plugs, etc complete.	2	EACH	218.80		437.60	
19.4.1.1	60	Providing and fixing SQUARE MOUTH S.W GULLY TRAP GRADE "A" COMPLETE WITH CI GRATING brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 Kg. and frame to be not less than 2.70 Kg. as per standarad design., bricks of specified class designation in cement mortar 1:4 (1 cement: 4 coarse sand) embedded in CC 1:5:10 plastering 12mm	2	EACH	935.15		1870.30	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		thk with cement mortar - 150 x 100 mm size, P type with FPS bricks of class designation 75				
17.7.2	61	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.	2	EACH	1201.70	2403.40
18.22.2	62	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 - 150 mm diameter	2	EACH	55.80	111.60
12.37.1	63	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. - 100 mm diameter	60	EACH	62.76	3765.60
12.40.2	64	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) .	130	RM	163.40	21242.00
13.61.1	65	Providing and Painting with SYNTHETIC ENAMEL PAINT of approved brand and manufacture to give an even shade two or more coats on new work.	10	SQ.M	33.25	332.50

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17.29	66	Providing and fixing SAND CAST IRON GRATING FOR GULLY TRAP of size 100 mm dia.	2	EACH	16.45	32.90
17.4.1	67	Providing and fixing WHITE VITREOUS CHINA FLAT BACK OR WALL CORNER TYPE LIPPED FRONT URINAL BASIN of 430 x 260 x 350 mm and 340 x 410 x 265 mm sizes, respectively with automatic flushing cistern (of approved make and conforming to IS:7231) with standard flush pipe and C.P. barass 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: - One urinal basin with 5 litre PVC automatic flushing cistern Parryware/ Hindware/ Seabird/ Orient (Coral)	6	EACH	2018.70	12112.20
19.1.2	68	Providing, laying & jointing GLAZED STONEWARE PIPES of 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. (with Gradient 1:100 in general)	10	RM	134.92	1349.19
1.1.2 - 5	69	Carriage of materials including loading, leading unloading & stacking of surplus earth, debris etc.- upto 2 K.M. lead	150	CUM	56.41	8461.50
9.127.1	70	Providing and fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS 2046 Type S including cost of adhesive of approved quality.	300	SQ.M	608.15	182445.00
10.6	71	Supplying and fixing ROLLING SHUTTERS of approved make, made of required size M.S. Laths inter- locked together through their entire length and				

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		jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides (25x65mm made from 3.15mm thick M.S. sheet) and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5cm long wire springs grade No.2 & M.S top cover of required thickness for rolling shutters, with:				
10.6.2	71A	80x1.20 mm M.S laths with 1.20 mm thk top cover	25	SQ.M	965.35	24133.75
24/2006-07[1	72	Providing and fixing 15 mm thick EXCEL-TONE MR VENUS III pattern reveled edge type Manufactured by M/s DAIKEN Corporation ,Mineral Fibre False Ceiling Tiles or equivalent of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanised @170 gsm/sqm.) consisting of main "T" runner suitably spaced at joints to get required length and of size	300	SQ.M	800.00	240000.00

**TOTAL ESTIMATED VALUE 2921406.82****CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR \_\_\_\_\_%****(Percentage in words )****TOTAL VALUE OF WORK**

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