



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL ENGINEERING DEPARTMENT

SCHEDULE- A

Tender Notice No:

PRICE BID

HY/FCD/OT-11/2008-09 , Dt: 03.10.08

Item no: 1

Name of work :- Construction of new Pump shop Assembly and Testing bay (186Mx30M), Annexe building of test bay-2 floors (2x60Mx10M), Annexe building for Assembly bay 2floors (2x30Mx8M) and Electrical main receiving station (64Mx8M).

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
Part-I Civil works					
1a	Earth work in excavation in all soils by mechanical means (Hydraulic Excavtors) / manual means in foundations trenches or drains (not exceeding 1.5m in width or 10 Sq.m on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed , within a lead of 50M	14360.00	Cu.m	103.40	1484824.00
b	----do---- up to First additional depth of 1.50 M to 3.00 M.	2265.00	Cu.m	122.30	277009.50
c	----do---- up to second additional depth of 3.01 M to 4.50 M.	1641.00	Cu.m	141.20	231709.20
d	----do---- up to third additional depth of 4.51 M to 6.00 M.	837.00	Cu.m	160.10	134003.70
e	----do---- up to fourth additional depth of 6.01 M to 7.50 M.	573.00	Cu.m	179.00	102567.00
f	----do---- up to fifth additional depth of 7.51 M to 9.00 M.	573.00	Cu.m	197.90	113396.70
g	----do---- up to sixth additional depth of 9.01 M to 10.50 M.	573.00	Cu.m	216.80	124226.40
h	----do---- up to seventh additional depth of 10.51 M to 12.00 M.	287.00	Cu.m	235.70	67645.90
i	----do---- up to eighth additional depth of 12.01 M to 13.50 M.	58.00	Cu.m	254.60	14766.80
2	Earth work in excavation by mechanical means (Hydraulic Excavators) / manual means over areas (exceeding 30 cm in depth , 1.5 m in width as well as 10 Sq.m on plan) including disposal of excavated earth , lead upto 50 m and lift upto 1.5 m, disposing earth to be levelled and neatly dressed for Hard Rock (Blasting prohibited).	2445.00	Cu.M	325.25	795236.25
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 20 mm nominal size).	2120.00	Cu.M	2449.00	5191880.00

SIGNATURE OF THE CONTRACTOR(S)

ISSUING OFFICER

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
4a	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering ,shuttering, finishing and reinforcement ,including consolidation by vibrations for all works up to plinth level with 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size).	4955.00	Cu.M	3732.00	18492060.00
4 b	Providing and laying in position ready mix concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 25 KM having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C from trasit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixures in recommended proportions as per ID: 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 kgs of cement per cu.m of concrete. All works upto floor V level. as per IS 456: 2000 for all concrete works upto all levels.	100.00	One Cu.m	4356.50	435650.00
5a	Providing and laying in position specified grade, of Reinforced cement concrete excluding the cost of centering,shuttering, finishing and reinforcement - all work up to plinth level with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) -	2193.00	cu.m	3359.60	7367602.80
5b	Providing and laying in position ready mix concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 25 KM having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C from trasit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixures in recommended proportions as per ID: 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. M 20 grade Reinforced cement concrete by using 320 kgs of cement per cu.m of concrete. All works upto floor V level.	1395.00	One Cu.m	3886.00	5420970.00
6	Centering and shuttering including strutting, propping etc; and removal of form work, for columns, pillars,peirs,abutments,machine foundations, posts and struts.	17695.00	Sq.M	180.40	3192178.00
	-----Do-----For Pockets .	570.00	Sq.M	180.40	102828.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
7	Reinforcement for R.C.C. work including straightening , cutting , bending , placing in position and binding grills with binding wire all complete by cold twisted bars.	550.00	M.T	42700.00	23485000.00
8	Conveyance of excavated spoil up to a lead of 2 Kms, including loading , unloading and spreading etc. complete as directed by Engineer-in- charge.	12400.00	Cu.M	56.41	699484.00
9	Filling with available excavated earth (excluding rock) in trenches , plinth , sides of foundations etc. in layers not exceeding 20 cm in depth , consolidation each deposited layer by ramming and watering , lead upto 50.00 m and lift upto 1.50 m.	5565.00	Cu.M	45.70	254320.50
10	Coursed rubble masonry in second sort with hard stone in foundation & plinth with cement mortar 1:6 (1 cement :6 coarse sand)	355.00	Cu.M	1913.10	679150.50
11	Brick work with FPS bricks of class designation 75 in superstructure above plinth level up to ground floor in all shapes and sizes in cement mortar 1:6.	721.00	Cu.M	2357.40	1699685.40
12a	Plastering in CM 1:6 , 20 mm thick to internal and external surfaces of walls including the cost of all materials , labour , curing etc, complete - Upto 10.00 M level.	5200.00	Sq.m	95.10	494520.00
b	Cement Plaster to ceiling /walls with 12mm thick cement plaster finished with a floating coat of neat cement of mix 1:3 (1 cement : 3 fine sand) .	2835.00	Sq.m	107.80	305613.00
13	Providing & Fixing of top fixed, side hung of NCL Secular windows fabricated from Roll formed section made of pre painted steel (Base steel as per IS 513 of 0.6 mm thick, 'D' quality, galvanized as per IS 277 with zinc 150 GSM / Sq. Mtr). Section for shutter should be of 46 x 46 mm, external frame should be of 46 x 52 mm, section for glass beading should be of 18 x 25 mm & center mullion should be 46 x 70 mm. The sections to be cut to length, meter joined with corner bracket. Centre mullions are to be fixed using mullion cap. Handle made of high grade aluminium powder coated & with nylon receiver & glazed with 4 mm thick, modi float glass. Gasket made of E.P.D.M. Corner brackets made of C.R.C.A with zinc phosphating. Million caps made of glass filled nylon. The above frames should be fixed to the concrete / masonry walls by means of self expanding screws.	640.00	Sq.m	3000.00	1920000.00
14	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufactures specifications including appropriate priming coat , preparation of surface , cost of all materials etc; complete on concrete work.	5580.00	Sq.M	77.75	433845.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
15	Granolithic topping of 25 mm thick using 1 cement 1 granite chips of 10mm down graded laid over base concrete when it is green conditions and ironite finishing 12mm thick using a mix of 50Kg of ironite , 200 Kg of cement and 0.30 Cu.m of granite metal 6mm down graded including cost of form work , curing etc. complete.	8880.00	Sq.m	428.50	3805080.00
16	Casting and placing in position of R.C.C cable trench covers of 75 mm thick in mix of 1:1.5:3 using 20 mm down graded metal including cutting, welding of Angle iron frame, cost of MS reinforcement as specified including cutting bending , binding wire, spreading of Ironite powder at 2 Kg / Sq.m, neat finishing ,cost of labour, etc complete as directed. (MS angles, electrodes only will be issued on free of cost by BHEL at their stores).	1261.00	Sq.m	1002.00	1263522.00
17	Fabrication and fixing M.S. Angles in the concrete with 10mm dia lugs welded to the M.S. Angle (Strl. Steel,electrodes and gases required for the work will be issued on free of cost by BHEL at their stores).	94.00	One MT	3500.00	329000.00
18a	Construction of Rectangular Manhole of inside dimensions 1.20 x 0.90 M including Earth work, bed concrete 1:2:4 – 200 mm thick, walls with C.R.S Masonry 2 nd sort in C.M (1:6) of 0.45 M width, plastering walls inside, out side with C.M (1:4) / 20 mm channeling, inside manhole neat finishing, fixing C.I Foot steps at 400 c/c. Fixing of Angle iron frame with 75 x 75 x 6 lugs welded in C.C 1:2:4 on top of wall of 8 Cms. Thick including back filling etc., complete. including casting & placing in position of RCC cover for the manhole. (M.S. Angle, will be issued free of cost). _ Manholes upto 1.50M to 2.00M.	10.00	Each	12000.00	120000.00
b	Same as above but with internal dimensions of 0.60 x 0.90 M upto 1.00 M depth.	16.00	Each	9000.00	144000.00
19	Supplying , laying and jointing 80 mm nominal bore GI pipe medium grade properties and weight as per IS 1239 , ISI marked with GI fittings, including cost of pipe and its fittings, labour charges, testing, etc., complete.	435.00	RM	458.15	199295.25
20a	Providing and laying non-pressure NP2 class (light duty) R.C.C. 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 - 250mm dia R.C.C pipe.	270.00	RM	258.20	69714.00
b	-----do -----for 300 mm dia RCC pipe.	48.00	RM	338.75	16260.00
c	-----do -----for 450 mm dia RCC pipe.	120.00	RM	499.55	59946.00
d	-----do -----for 600 mm dia RCC pipe.	180.00	RM	895.10	161118.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
21a	Grouting with cement mortar 1:1 including cost of all materials, labour, curing, for all leads and lifts etc; complete.For pockets	47.00	Cu.m	6016.56	282778.32
b	Grouting bolt pockets with Grouting mix issued by BHEL on free of cost including cost of all labour, conveyance charges etc., complete.	29.00	Cu.m	400.00	11600.00
22	Painting with bitumen paint 80/100 grade @ 1.2 kg/sq.m. for construction joints of flooring slab.	166.00	Sq.m	30.00	4980.00
23	Providing STP make 12 mm thick mastic pad of 25mm depth in flooring construction joints including cost of all materials and labour	276.00	RM	10.40	2870.40
24	Supply and fixing 12 x 25 mm thick teak wood reaper in the dummy of RCC flooring.	276.00	RM	14.00	3864.00
25	Providing and Laying Damp-Proof Course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse Sand : 4 Graded stone aggregate 12.5 mm nominal size).	188.00	Sq.m	144.15	27100.20
26	Providing and fixing 10mm thick acid and alkali resisitant tiles over a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand) of approved make and colour using acid and or aikali reising mortar bedding and joints filled with acid and or alkali resisting cement as per Is:4457 complete as per the directions of Engineer-in-charge ,	12.00	One Sq.m	873.00	10476.00
27	Plastering over roof slab in CM 1:4, 20mm thick mixed with water proofing compound, Make: "Sika" @ 3% by weight of cement as per manufacturer's specification, curing as directed. Rate quoted shall include finishing, cost of all materials and labour etc., complete. (Cement =7.69 kgs/sq.m x3% WP@ Rs 20.00 per kg=Rs 4.61) upto 10 m height.	1340.00	Sq.m	115.06	154180.40
28	Supplying and laying of vitrified tiles of brighter shades and marble design of Premium Quality (1st quality) in required texture, design and colour, for flooring /skirting /cladding using vitrified tiles of size 600 x 600mmx8 mm thick of approved make. It includes cost of cutting, champering of tiles to required size, with base of Conmax C - 500 tile adhesive for fixing tiles on existing mosaic/cement flooring, jointing the tiles with colour tint etc. complete as directed by Engineer-in-charge. The rate quoted shall include cost of all materials, labour, adhesives, colour tint material, leads and lifts etc. complete. Amount will be paid on the basis of measurement of the area of finished work only. It also includes surface preparation of existing ceramic floor giving necessary slopes, cleaning joints and grouting joints with pigmented additives to match shade of the tile, making pockets for electrical, communication, network cables etc. complete as directed by Engineer-in-charge. Amount will be paid on the basis of measurement for finished work only.	790.00	Sq.m	950.00	750500.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
29	Supply & fixing of 18 mm thick best quality approved colour and design machine cut mirror polished granite slabs in required sizes for counter wash basins, floorings, vanity counter, claddings, facias etc. including cutting, champering, rounding and mirror polishing etc. complete as directed. Cost of granite slabs shall be Rs. 1600/- per Sq. m and granite slabs of required design and colour will be selected by department.	399.00	sq.m	3071.00	1225329.00
30	Providing and fixing in true horizontal level 600 mm x 600mm false ceiling system manufactured by M/s. Armstrong World Industries using DUNE SUPREME RH 99 MICROLOOK EDGE WITH SILHOUETTE GRID, using hot dipped galvanized steel section, rotary stitched main tee of size 15mm x 42 mm web height, having 0.36 mm gauge at every 600 mm centre to centre maximum and rotary stitched cross tee of size 15 mm x 42 mm, having 0.33 mm gauge at every 600 mm. c/c. and wall angle of size 19 x 19 mm., having 0.35 mm gauge fixed to the periphery of the wall. The above grid is suspended at every 600mm c/c. in both directions using 2.0 mm. thick pre-straightened GI wire, and laying Dune Supreme Microlook Edge ceiling tiles manufactured by M/s. Armstrong World Industries, of size 600mmx600mmx15mm having NRC 0.50, Light reflectance of >85% (WT), thermal conductivity k = 0.052-0.057 W/m0K, Humidity Resistance of 99% (having LIFETIME GUARANTEE against SAG), having Fire Performance CLASS O / CLASS 1 (BS 476), surface having 3 coats of white paint - crisp finely granulated with microperforations, back of the tile duly sanded and finished with a coat of protective paint over the formed grid and complete in all respects. Boards, where light fixtures to be fixed shall be handed over to Department. Make: Armstrong	840.00	Sq.m	1130.00	949200.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
31	Supplying and fixing aluminum door with single shutters made out of new anodised aluminum box section of size 44.50x 47.50x 2.00mm for verticals, top and middle rails and 101.60x44.50x2.00mm for bottom rail inclusive of supply and fixing of all aluminum fixtures and fittings such as handles 2 nos, 1 No of tower bolt 12mm dia 200mm long, 1 No of hydraulic door closure of IS specification , 3 nos of 4" long(100mm) but hinges, stopper 1 No and suitable locking arrangement etc. complete . Wherever members are joined wooden runners are to be inserted in the box section for taking hinges, tower bolts, handles, hydraulic door closure and providing necessary rubber bedding for closing of door shutters all as directed by Engineer-in - charge. The rate shall include cost of door frame using aluminium box sections of size 101.60x44.50x2.00 mm. etc. complete all as directed by Engineer in charge .	47.00	Sq.m	2918.40	137164.80
32	Supply and aluminium partition with new anodised box - section of size 101.60 X 44.45 X 2 mm for verticals,Top & Horizontal and 63.50 X 38.10 X 2 mm for intermediate horizontal at spacing suiting to the site requirements as approved . Wherever doors are coming wooden runners are to be provided into box section. This includes grouting of the frame to the floor properly fixed at ends to walls , cost of aluminium section , labour etc; Complete .(The door opening shall be deducted for payment).	480.00	One sq.m	1316.00	631680.00
33	Supply & fixing 5.5 mm thick plain / ground glass to the aluminium frame with rubber bedding screwless snap on clips etc. complete	230.00	One sq.m	668.00	153640.00
34 a	Supply and fixing 9 mm thick pre-laminated particle board both side laminated exterior grade fixed to frame with rubber bedding screw less snap on clips etc., complete.	286.00	One sq.m	534.00	152724.00
b	---- do ---- of 12 mm thick for doors with both sides laminated.	31.00	One sq.m	606.00	18786.00
35	Providing and fixing stainless steel tubular railings (1.2 mm thick) 0.90 M height as per design and drawings using top rail(2") , vertical pipe(1.5"), Horizontal pipe (0.63") along with 12 mm thick glass with glossy finish etc., as directed by Engineer- incharge.	102.00	RM	3300.00	336600.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
36	Etching of balcony/ stair case glass panels of size 135 cm x 46 cm (53"x18") with boarder of 12 mm width around the glass and BHEL emblem as directed by the Engineer- incharge. The rate quoted shall include cost of etching of glass panels, transportation, labour etc., complete.(payment for supply and fixing of glass for 12 mm thick glass will be paid under above item)	51.00	One sq.m	860.00	43860.00
37	Supplying and fixing of HDPE pipes with 4.0 kg/sq.cm of OD 110 mm conforming to IS 4984 1995 including transportation of approved quality with specials, accessories and approved sealing /jointing compound on the exterior of the inserted portion of the fitting and fixing in position and joing including cost of all materials ,sealing compound ,labour etc., for all heights complete	168.00	RM	190.60	32020.80
38	with double leaf manual slide opening mechanim at main entrance in required size made out of anodised aluminum box section of size 44.50x47.50x2 mm for verticals, top and middle rails and 101.60x44.50x2 mm for bottom rail inclusive of supply & fixing of all aluminium fixtures and fittings suitable to the door sliding mechanism, handles, suitable locking arrangement etc. complete, wherever members are joined wooden runners are to be inserted in the box section. This includes grouting of rails/aluminum sliding sections to the floor properly etc. complete as directed by Engineer-in-charge.Providing & fixing of 12 mm toughened glass with rubber beading with screwless snap on clips etc. for top portion of the door frame of approximate size 3' x 2.5' on each door leaf and 12 mm thick "Novapan" particle board, exterior grade, laminated on both sides fixed to bottom portion of the door frame of approximate size 3' x 4.5' on each door leaf with rubber beading, screwless snap on clips etc. complete. (No. of door -1, door leaf - 2 Nos.and the approximate size of the door is 7' x 6')	18.00	Sq.m	4000.00	72000.00
39	Applying two or more coats of distemper with oil bound washable distemper of approved brand and manufacture to given an even shade including preparation of the surface, cost of all labour, material and other incidentals including priming coat with cement primer.	6770.00	One Sq.m	41.55	281293.50

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
40	Finishing walls with acrylic smooth exterior paint of required shade for new work with two or more coat applied @ 1.67 ltr/ 10 Sq.m over and including base coat of water proofing cement paint applied @ 2.20 Kg/10 Sq.m	3936.00	Sq.m	50.40	198374.40
41	Supply and fixing of aluminum window grills of size 1.50 Mx1.80M and 1.20 mx1.80M . along with aluminium frame consisting aluminium 'F' (solid) 0.80kg/12' supply and fixing of design of 2" aperture aluminium grill to the above frame work with necessary fixtures. It includes fixing of total frame to the existing brick work, finishing etc complete. (The material shall be aluminium alloy :6063, thick 7 mm, ultimate tensile strength more than 19 kgs/sq.mm)	64.00	One Sq.m	1540.00	98560.00
42	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green , black of any size as approved by engineer-in-charge in skirting , risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 Kg per Sq.m including pointing in white cement mixed with pigment of matching shade complete.	864.00	One Sq.m	556.60	480902.40
43	Providing and Laying ceramic glazed floor tiles 300 X 300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS:15622 of approved make in colours such as white , Ivory , grey , fume red brown , laid on 20mm thick cement mortar 1:4 (1cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc; complete.	192.00	One Sq.m	598.65	114940.80
44a	Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structure as directed by engineer-in-charge and consisting of:i) 1st layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement :3 coarse asnd) mixed with water proofing compound conforming to IS:2645 in the recommended proportion over the levelling course)leveling course to be paid separately). joints sealed and grouted with cement slurry mixed with water proofing compound. ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportions .iii) Finishing top with stone aggregate of 10mm to 12 mm nominal size spreading @ 8 Cudm/ Sq.m throughly embedded in the 2nd layer using Rough Kota Stone.	1362.00	Sq.M	540.30	735888.60

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
b	Providing and Laying water proofing treatment in sunken portion of Wc's bathroom etc; by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 Kg/Sq.m mixed with water proofing cement compound @0.253 Kg/Sq.m. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 Kg/Sq.m mixed with water proofing cement compound @ 0.126 Kg/Sq.m.This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	1200.00	Sq.M	143.85	172620.00
45	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing and staircase railing including applying a priming coat of approved steel primer with M.S. tube.	51.00	M.T	60150.00	3067650.00
46	Removing Existing Railway Track with all fixtures such as rails, sleepers etc., including clearing concret from rails and stacking at site for re-laying etc., complete	14.00	One MT	890.11	12461.54
47a	Felling trees of the girth (measured at a height of 1m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable materials and disposal of unserviceable materials - upto 1.20 M	15.00	Each	359.80	5397.00
b	---- upto 2.40 m---	15.00	Each	1658.85	24882.75
48	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size).	138.00	Cu.m	3257.45	449528.10
49	Flooring in 25mm thick using 1 cement and 3 parts of granite stone chips of 3 to 10mm gauge (no sand) ellis pattern first sort including neat finishing , curing,cost of materials etc; complete.	528.00	Sq.m	196.00	103488.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
50	Supplying and fixing plain PVC pipe of 75mm dia (as per IS 4kg/sq.m) of approved quality with specials, accessories and approved sealing /jointing compound on the exterior of the inserted portion of the fitting and fixing in position and joining to MS gutters , including cost of all materials ,sealing compound ,labour etc., for all heights complete	28.00	One RM	80.78	2261.84
	Sanitary items				
51	Supply and fixing of new urinary pans, "Parry ware" make, ceramic, Model (Cat 0575)- "New Magnum Urinal" (600 mm x 400 mm) along with all accessories, C.P spreader brackets etc., regular in colour along with partition for Magnum Urinal ceramic, 'Z' type brackets to be screwed to the wall at the bottom, in regular colour etc., complete.	24.00	Each	3933.00	94392.00
52	Supply and fixing with "Parry ware" make Cascade series wash hand basin of size 550 mm x 450 mm oval shape with counter top with centre tap hole, regular in colour with all accessories like brackets, screws etc., complete	15.00	Each	2024.00	30360.00
53	Supply and fixing of new "Parry ware" make ceramic cascade water closet suite with "P/S" trap including Cascade seat cover (Cat 8012) with all accessories regular in colour along with (water closet suite including with attached flush cistern 10 litres capacity with parry ware flush fittings) etc complete	3.00	Each	6985.00	20955.00
54	Supply and fixing of new "Parry ware" make Orissa pan size 580 mm (Cat 0109/17) with P/S trap box rim with internal foot treads including ceramic low level flushing cistern 10 litres capacity with Parry ware wonder flush kit, regular in colour with all required accessories etc., complete.	12.00	Each	4261.00	51132.00
55	Supply & fixing of 6 mm thick mirror of approved quality "Modi float/Saintgobin glass", with 6 mm thick hard board back and with best quality teak wood frame (design beading) all round the mirror including necessary clamps, polishing to the beading, cost of all materials etc. complete.	9.00	One Sq.m	1445.00	13005.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
56	Supply & fixing of PVC door along with frame of Syntex make in required size. The door frame made from extruded PVC sections in an overall size of 40 mm x 48 mm having multi chamber cross section with a maximum wall thickness of 2.5 mm \pm 0.3 mm duly reinforced with PVC to be mitre cut at corners and welded. A tie rod to be provided at bottom. Necessary weather seals shall be provided. Sintex doors are made out of PVC section and panels. The door shutter is made out of extruded PVC sections solid core type with usual process variation and having a wall thickness of 2 mm with a variation of \pm 0.3 mm provided with all plastic reinforcement to avoid any type of rusting or corrodes. The shutter frame is mitered and joined at the corners by means of stainless steel screws. The corners of the shutter frame are being reinforced by polymeric reinforcement of the size 120x200 mm and the lock rail is reinforced by 20x18x255 mm size reinforcement. The rate quoted shall include the cost of brass hinges, brass aldrops and brass tower bolts etc. of suitable size and of approved make.	23.00	One Sq.m	2925.20	67279.60
57	Supply and fixing in position medium teak wood door frame along with single leaf shutters solid core non - decorative type 30 mm thick of approved quality and brand including 3 No.s MS hinges 10 cm long and 1 no. mortise lock (Godrej make) , using scantling of size 100 mm X 75 mm (including with MS holdfasts of size 230 X 50 X 4 mm - 6 No.s and painting with coal tar to the faces coming in contact with masonry / concrete . including cost of all materials , labour etc. complete as directed by Engineer - in - charge.	6.30	One Sq.M	3180.00	20034.00
58	Supply and fixing steel windows of approved make including supply and fixing 4 mm thick plain glass with best quality putty, MS handles and peg stays including painting with two coats of synthetic enamel paint over one coat of red oxide paint including supplying and fixing weld mesh 50 x 50 mm (8G x 8 G).The window section and fabrication shall confirm to I.S. 1038.	18.00	Sq.m	1900.00	34200.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
59	Supply & fixing "Jaquar" make urinal flushing valves for urinal pots in all accessories/Cat: 1077.	32.00	One Each	1320.00	42240.00
60	Supply & fixing "Marc" make oyster series brass bib cocks. With all accessories / Cat: MOY 1030.	18.00	One Each	506.00	9108.00
61	Supply & fixing "Marc" make oyster series brass pillar cocks. (Cat: MOY 1010) with all accessories etc.	21.00	One Each	519.00	10899.00
62	Supply & fixing "Marc" make oyster series brass stop cocks. (Cat: MOY 1040) with all accessories.	54.00	One Each	698.00	37692.00
63	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green , black of any size as approved by engineer-in-charge in skirting , risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 Kg per Sq.m including poniting in white cement mixed with pigment of matching shade complete.	207.00	One Sq.m	556.80	115257.60
64	Thorough cleaning of existing oil bound distemper paint/white washing with water by scrapers or any other suitable tools and applying one coat of oil based cement primer and applying 3 coats altek lappam one coat after drying the previous coat and sand papering and applying one coat of oil bound cement primer etc., complete as directed by the Engineer-in-charge. (Only OBD Paint will be supplied by BHEL)	450.00	One Sq.m	84.10	37845.00
65	Finishing walls with Premium Acrylic smooth exterior paint with silicon addtives of required shade on new work (Two are more coat applied @ 1.43 ltr/ 10 Sq.m over and including base coat of water proofing cement paint applied @ 2.20 Kg/10 Sq.m)	300.00	Sq.m	60.10	18030.00
66	Applying two coat of synthetic enamel paint of given shade over a coat of primer to new wood work including scraping the surfacess, cost of all labour, tools and other incidentals etc.complete.	30.00	Sq.m	51.30	1539.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
67	Supply & fixing in position PVC Pipes of 3" dia(as per IS 6kg/sq.m) of best quality for drainage lines / urinal / hand wash areas including chasing the brick wall, concrete etc and making good the same after fixing the same etc. complete.	288.00	One RM	108.70	31305.60
68	Supplying and fixing CI Nahany traps 1st quality ISI marked conforming to IS: 1729 - 1979 with C.P Grating fixing with white cement as per site requirements with standard practice - 100mm inlet - 75 mm dia (3") outlet pipe - 4 Kgs.	36.00	One Each	200.00	7200.00
69 a	Supply & fixing 15 mm dia Nominal Bore GI pipe medium Grade properties and weight as per IS 1239 ISI mark with GI fittings including the cost of GI pipe & its fittings, chasing brick work/concrete and making good the same ,cost of labour , all materials etc. complete.	315.00	One RM	131.00	41265.00
(b)	.. Do... 20mm dia (3/4")	210.00	One RM	146.00	30660.00
(c)	.. Do... 25mm dia (1")	150.00	One RM	191.00	28650.00
70(a)	Supply & fixing of Gunmetal Gate (GM peet) valve as per IS -778 class-I, Indian make heavy type 15 mm (1/2") dia NB size.	45.00	One Each	242.00	10890.00
b	.. Do .. 20mm dia (3/4")	30.00	One Each	327.00	9810.00
c	...do ...25mm dia (1")	12.00	One Each	482.00	5784.00
71	Supplying ,laying ,jointing and testing 152.4 mm (6") SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in Cement mortar 1:5:1 prop. including excavation of trenches and socket pits in anysoil(except rock requiring blasting) up to 1524 mm(5'.0") depth and refilling with watering and tamping.	120.00	One RM	254.00	30480.00
72	Construction of brick masonry chamber of dimension 0.914 x 0.457 x 0.914 m (3' x 1'6" x 3') with brick in CM 1:6 including plastering over both sides with CM 1:4, 20 mm thick and fitted with light weight CI frame and cover of size 0.914 x 0.457 m in CM 1:4 including bed concrete of CC 1:4:8 as required, supplying and fixing one CI steps in brick masonry if necessary if necessary including earth work excavation in all soils, refilling around the chamber removing the surplus earth etc. complete as directed.CI frame and cover of 40 kgs.	9.00	One Each	3226.00	29034.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
73	Construction of brick masonry chamber of size 23 x 30 Cm (9" x 12") in brick work in CM 1:6 and plastering in CM 1:4, 20 mm for gully trap 150 mmx100mm including cost of excavation, PCC 1:4:8, 75 mm thick, all materials, labour etc., complete.	6.00	One Each	321.00	1926.00
74	Supplying and fixing position PVC tank of 1000 Liters capacity double layer of approved make including giving inlet and out let connections, cost of all materials like GI specials, labour etc, complete	3.00	One Each	6000.00	18000.00
75	Dismantling brick masonry walls for all heights, removing and clearing the debries and carting away upto to lead of 2 KM including loading, unloading and spreading segregating useful materials as directed by Engineer-in-charge including the cost of all labour scaffolding etc., complete.	23.00	One Cu.m	355.88	8185.24
76	Dismantling reinforced cement concrete / plain cement concrete and disposing of debries upto to a lead of 2 KM including loading, unloading and spreading as directed by Engineer-in-charge etc., complete.	7.50	One Cu.m	582.68	4370.10
Part-I Rs					91299238.89
Part-II Structural Steel Works					
1a	Fabrication of structural steel work including all materials going into the process of fabrication and forming an integral part of steel work together with all shop and site rivets and electrodes for site welding as necessary and all site connections comprising sag rods, floor beams, girders, bracings, trusses and frame work for fixed false ceiling and for movable false ceiling, purlins with channel / angles, MS flat supports including all connections as per detailed drawings connected steel works etc., cleats, gusset plates, all bolts, nuts, washers, base plates, anchor bolts as per detailed drawings, cutting, welding and painting 2 coats of red-oxide primer before erection etc., complete. The rate shall include painting 2 coat of Red-oxide as per IS specifications and all charges for handling, leading and loading at the fabrication yard. The raw structural steel sections, electrodes, gasses will be issued by BHEL on FREE of cost at their stores	1316.00	MT	12579.00	16553964.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
b	Erection of Steel work out lined in item No.1 above including the charges for handling, leading and stacking at site at approved locations prior to erection including all site rivetting, bolting, jointing and site welding where ever required.	1316.00	MT	Rate included in the above item	
2	Painting at site of all structural steel work with 2 coats of aluminium paint / synthetic enamel paint of approved shade to trusses, columns, girders, bracings etc., with aluminium paint or synthetic enamel paint as required etc., complete. The required paint only will be issued free of cost by B.H.E.L at their stores.	1316.00	MT	596.50	784994.00
3 a	Supplying and fixing of Tracdek Hi-rib single skin galvalume / Zinalume sheets of 0.5 mm thick. One Meter width and length upto 12 M with Factory cut and fixing to the roof shall be crest fixed to roof purlins with number 12-14 x 55 mm long polymer coated galvanized hex-head self drilling screws with integral washers and EPDM seals (4 fasteners per support) for sheet etc., complete as directed. (Including cost of galvalume sheets). - for roofing bare galvalume	7653.00	Sq.m	660.00	5050980.00
3 b	.. Do.. Cladding - Coloured	6700.00	Sq.m	720.00	4824000.00
4	Supply & Installation of 0.5 mm thick colour galvalume sheet flashings hood / ridges/ triangular portion closers to require shape with self threaded screws etc. complete as directed.	32.00	Sq.M	900.00	28800.00
5	Supply and fixing North Light curves in required girth with 0.5 mm color galvalume sheets upto a length of 2.5 M having curved width upto 600 mm fixing to the steel members with self drilling / self stitching, fasteners at a maximum of 500 mm c/c along the length of capping, flashing etc., complete as directed by Engineer-in-charge including the cost of galvalume sheets, labour etc., complete.	558.00	Sq.M	720.00	401760.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
6	Providing and fixing 4.5 mm thick polycarbonate sheets and anodised aluminium glazing bars together with accessories complete for North light glazing including cost of all materials, labour etc., complete.	1674.00	Sq.m	1200.00	2008800.00
7	Fabrication and fixing in position MS rain water gutter made out of 2.5 mm to 3.15 mm thick MS sheet including one coat of Red-oxide to relevant IS specifications, riveting or welding the joints, making joints water tight and providing spouts wherever required and painting with two coats of aluminium paint etc., complete all as per drawing. MS sheet of 2.5 mm to 3.15 mm thick will be issued free of cost by B.H.E.L at their stores.	558.00	One RM	464.00	258912.00
8	Supplying and fixing plain PVC pipe of 200 mm dia of approved quality with specials, accessories and approved sealing /jointing compound on the exterior of the inserted portion of the fitting and fixing in position and joining to MS gutters , including cost of all materials ,sealing compound ,labour etc., for all heights complete	468.00	One RM	568.00	265824.00
9	Supply and fixing of Electrically operated rolling shutters conforming to as per IS 6248 , Shutter curtain made out of Aluminum Double Wall with 60 mm, OD " C " class Pipe, side Guide 150x2.5 mm thick Top Bracket 6 mm thick, MS Plate and Aluminum Bottom Rail 3.0 mm thick and Angle support 40x40x5 mm thick Angle End to End, Hood Cover 1.00 mm thick, Electrical Gear Operated System with 1 No of Reduxion Gear Box, 1 No Cromption Induction Motor 3 Phase(capacity of the Motor shall be suitable to the size of the doors as mentioned below) with Limit Switch and Reversible Switch make of Bharat Cutter with necessary electrical cabling required for operation of shutter.One coat of Red Oxide paint except shutter curtain. The rolling shutter shall be provided with proper locking arrangement and shall be as per IS 6248. The rate quoted shall include cost of all materials, labour and scaffolding etc complete as directed by Engineer.The measurement will be made on finished item of the work for payment.(The shutter curtain is made out of Aluminium and all the other items are made out of MS and the approximatesize of the door is 5x6 M)	180.00	Sq.M	9396.00	1691280.00

S. No	Description of the item	Approx Qty	Unit	Rate in Rs	Amount (Rs)
10	Supplying and fixing rolling shutters of approved make, made of required size M.S.laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operations complete including the cost of providing and fixing necessary 27.5 cm long wire springs grade No.2 and M.S. top cover of required thickness for rolling shutters - 80 X 1.25 mm M.S. laths with 1.25 mm thick top cover.	126.00	Sq.m	1208.45	152264.70
11	Supply and fixing weldmesh 50 X 50 MM 8 guage.	400.00	Sq.M	253.00	101200.00
12	Fabrication and fixing of M.S holding down bolts , threaded both sides including supply of nuts, washers etc., complete as directed. (M.S. rounds as per required size will be issued on free of cost at BHEL stores)	3.50	One MT	26476.30	92667.05
13	Dismantling steel work in built up sections in angles tees, flats and channels including all gusset plates, bolts, cutting rivets, welding etc., including dismembering and stacking within 50 metres lead.	5.00	One MT	890.11	4450.55
14	Fixing 52 Kg rails for various gauges at floor level including fixing side guide angle etc., complete with necessary clamps required for fixing rails in position and alignment, leveling as per B.I.S 7215-1974. (M.S rails, M.S. Angles, Strl. steel will be issued free of cost by BHEL at their stores).Including cost of clamps,bolts & nuts etc.,	20.00	One MT	6000.00	120000.00
15	Removing of corrugated / semi corrugated, A.C sheets including North Light curves barge boards etc., in roof, sides, gable ends, louvers etc., and stacking the materials carefully for re-use wherever required.	600.00	One Sq.m	41.60	24960.00
16	Dismantling & stacking of Rain water down take pipes including loading, carting, unloading etc., with in the premises up to a lead of 2 km as directed.	9.00	MT	890.11	8010.99

Part-II Rs 32372867.29

Total = Part-I + Part-II	123672106.18
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Total in words: Rupees Twelve Crores thirty six Lakhs seventy two thousands one hundred and six only.

I / We have quoted above [] / below [] (tick the relevant) for the rates given above.

% in words:

Name of the Contractor :

Signature of the Contractor

Accounts Representative

Opening officer