

Issued to agency:



**BHARAT HEAVY ELECTRICALS LIMITED**  
 RAMACHANDRAPURAM, HYDERABAD-32  
 FACTORY CIVIL ENGINEERING DEPARTMENT

## SCHEDULE- A

Tender Notice No:

PRICE BID

HY/FCD/OT-20/2009-10 , Dt:- 22.01.2010

Item no : 01

**Name of work : - Construction of NDT Room in 06 Block & Construction of New Bay (128 M X 30 M ) For HE & F**

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
1a	<b>Earth work in excavation in all soils</b> by mechanical means (Hydraulic Excavators) / 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.	4358.00	Cu.m	103.40	450617.20
b	----do---- up to First additional depth of 1.50 M to 3.00 M.	1524.00	Cu.m	122.30	186385.20
c	----do---- up to second additional depth of 3.01 M to 4.50 M.	1524.00	Cu.m	141.20	215188.80
d	----do---- up to third additional depth of 4.51 M to 6.00 M.	394.00	Cu.m	160.10	63079.40
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 <b>Hard Rock</b> (Blasting prohibited).	820.00	Cu.M	325.25	266705.00
3	<b>Filling</b> 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.	4055.00	Cu.m	45.70	185313.50
4.a	<b>Conveyance</b> of excavated spoil up to a lead of 2 Kms, including loading , unloading and spreading etc. complete as directed by Engineer- in- charge.	3745.00	Cu.M	56.41	211255.45
b	<b>Extra</b> for Conveyance of excavated spoil beyond a lead of 2 Kms and up to a lead of 3 Kms, including loading , unloading and spreading etc. complete as directed by Engineer- in- charge. Additional to 4.a	1720.00	Cu.M	6.91	11885.20
5	<b>Brick work</b> 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.	239.00	Cu.m	2357.40	563418.60

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
6	Providing and laying in position <b>cement concrete</b> of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with <b>1:4:8</b> (1 cement : 4 coarse sand : 8 graded stone aggregate of 20 mm nominal size ).	711.00	Cu.m	2449.00	1741239.00
7a	Providing and laying in position specified grade, of <b>Reinforced cement concrete</b> excluding the cost of centering, shuttering, finishing and reinforcement - <b>all work up to plinth level with 1:2:4</b> (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size ) -	90.00	Cu.m	3359.60	302364.00
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 <b>R.M.C</b> from transit 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. <b>M 20 grade</b> Reinforced cement concrete by using 320 kgs of cement per cu.m of concrete. All works upto floor V level. (cement cost considered in the estimate is Rs 144.00 per bag. If there is increase or decrease proportionate reimbursement/recovery cost will be done by BHEL)	754.00	Cu.m	3856.80	2908027.20
8a	Providing and laying in position specified grade of <b>reinforced cement concrete</b> excluding the cost of centering ,shuttering, finishing and reinforcement ,including consolidation by vibrations for all works <b>up to plinth level with 1:1½ :3</b> (1 cement : 1½ coarse sand :3 graded stone aggregate of 20 mm nominal size ).	2063.00	Cu.m	3732.00	7699116.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
8b	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 <b>R.M.C</b> from transit 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. <b>M 25 grade</b> 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.(cement cost considered in the estimate is Rs 144.00 per bag. If there is increase or decrease proportionate reimbursement/recovery cost will be done by BHEL)	750.00	Cu.m	4162.80	3122100.00
9	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 <b>ironite finishing</b> 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.	4970.00	Sq.m	485.00	2410450.00
10	<b>Centering and shuttering</b> including strutting, propping etc; and removal of form work, for columns, pillars,peirs,abutments,machine foundations, posts and struts.	5513.00	Sq.m	180.40	994545.20
11	<b>Reinforcement for R.C.C. work</b> including straightening , cutting , bending , placing in position and binding grills with binding wire all complete by cold twisted bars.	281.00	MT	42700.00	11998700.00
12a	<b>Plastering in CM 1:6 , 20 mm</b> thick to internal and external surfaces of walls including the cost of all materials , labour , curing etc, complete -Upto 10.00 M level.	1634.00	Sq.m	95.10	155393.40
b	<b>Cement Plaster to ceiling / internal walls with 12mm</b> thick cement plaster finished with a floating coat of neat cement of mix 1:3 ( 1 cement : 3 fine sand ) .	734.00	Sq.m	107.80	79125.20
13	Plastering over <b>roof slab in CM 1:4, 20mm</b> 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.	440.00	Sq.m	115.06	50626.40

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
14	Applying <b>exterior</b> emulsion paint 2 coats to external new plastered surfaces including curing etc., over a coat of primer ( paint will be issued free of cost by BHEL at their stores).	1864.00	Sq m	29.90	55733.60
15	Finishing with <b>Epoxy paint ( two or more coats)</b> 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.	292.00	Sq.M	77.75	22703.00
16	Applying two or more coats of distemper with <b>oil bound washable distemper</b> of approved brand and manufacture to give an even shade on plastered surfaces including preparation of the surface, cost of all labour, material and other incidentals including priming coat with cement primer.	1432.00	Sq.m	41.60	59571.20
17	<b>Supply and fixing chain link fabric fencing</b> of required width in mesh size 50X 50 mm including strengthening with 2mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge - made of G.I wire of dia 4mm.	150.00	Sq.m	373.45	56017.50
18	<b>Fencing with angle iron post</b> placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire 9.38kg per 100m (Minimum) between the two post fitted and fixed with GI staples, turn buckels etc., complete (Cost of post, struts, earth work and concrete work to be paid seperately); payment to be made per meter cost of total length of barbed wire used-with G.I barbed wire.	600.00	RM	8.45	5070.00
19	<b>Supplying and fixing of HDPE pipes</b> 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.	64.00	RM	274.69	17580.16

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
20	Supply and fixing of top fixed, side hung of NCL Seccolor Ajantha windows & Ventilators 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 120 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 5 mm thick, Modi/Saint Gobain float glass. Gasket made of E.P.D.M. Corner brackets made of C.R.C.A with zinc phosphating. Mullion caps made of glass filled nylon. The above frames should be fixed to the concrete / masonry walls by means of self expanding screws. Approximate size of windows 1.30mx0.9m and 3.00mx2.10m -Double shutter without guard bars(grills)... Excise duty/VAT inclusive .Service tax extra as applicable.	375.00	Sq.m	4046.00	1517250.00
21	Supply and fixing of <b>aluminum window grills</b> of approximate size 3x2.1M,1.50Mx2.1M along with aluminium frame consisting aluminium 'F' (solid) 0.80kg/12' supply and fixing of design of 4" 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)	375.00	Sq.m	1540.00	577500.00
22	Supply and fixing <b>aluminium partition</b> 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 inter mediate 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).	157.00	Sq.m	1316.00	206612.00
23	Providing 50mm thick purdi wall and Side Drops in CM 1:4 at all Floors including cost of form work , supplying and tying of chickenmesh net to reinforcement , cost of binding wire and providing border bands and openings if any, curing etc; complete but excluding cost and fabrication of MS reinforcement which will be paid separately.	4.00	Sq.m	450.00	1800.00
24	Supply & fixing 5.5 mm thick plain / ground <b>glass</b> to the aluminium frame with rubber beeding screwless snap on clips etc. complete	96.00	sq.m	668.00	64128.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
25a	Supply and fixing 9 mm thick <b>pre-laminated particle board</b> both side laminated exterior grade fixed to frame with rubber beading screw less snap on clips etc., complete.	79.00	sq.m	534.00	42186.00
b	---- do ---- of 12 mm thick for doors with both sides laminated.	18.00	sq.m	606.00	10908.00
26	Supply & fixing of <b>aluminium door</b> with single shutter made out of anodised aluminium box section of size 44.50 x 47.50 x 2.00 mm for verticals, top and middle rails and 101.60 x 44.50 x 2.00 mm for bottom rail inclusive of supply and fixing all aluminium fixtures and fittings such as handles 2 Nos., 1 No., of tower bolt 12 mm dia, 200 mm long, 1 No. of hydraulic door closure of IS specification, 3 Nos. of 4" (100 mm) long butt hinges, stopper - 1 No., suitable locking arrangement etc. complete. Wherever members are joined wooden runners are to be inserted in the box section for fixing hinges, tower bolts, handles, hydraulic door closure and providing necessary rubber beeding for smooth closing of door shutter. All as directed by Engineer-in-charge. The rate shall include cost of door frame using aluminium box section of size 101.60 x 44.50 x 2.00 mm, 12 mm thick toughened glass etc. complete.Approx. size of doors 1.2mx2.1m.	51.17	Sq. m	4000.00	204680.00
27	Providing and fixing in true horizontal level 600 mm x 600mm <b>false ceiling</b> 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 0 / 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.	209.00	Sq m	1130.00	236170.00
28	Providing and fixing <b>hand rail</b> 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 <b>M.S. tube</b> .	6.00	M.T	60150.00	360900.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
29a	<b>Fabrication of structural steel</b> work including all materials going into the process of fabrication and forming and integral form 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 rate excludes the cost of electrodes, gases, raw structural steel sections which will be issued FREE of cost at BHEL stores.	1651.00	MT	7563.80	12487833.80
b	<b>Erection</b> of Steel work out lined in item No.29(a) 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.	1651.00	MT	3241.60	5351881.60
c	<b>Painting</b> 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.	1609.00	MT	596.50	959768.50
30a	Supplying and fixing of Tracdek Hi-rib single skin galvalume 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 imported seals (4 fasteners per support) for sheet etc., complete as directed. (Including cost of galvalume sheets). - for roofing bare galvalume. Inclusive of Excise duty and VAT.(Service tax extra as applicable will be paid by BHEL on submission of valid documents).	6048.00	Sq.m	545.90	3301603.20
b	Do.. Cladding - Coloured	5308.00	Sq.m	672.40	3569099.20
31	Supply & Installation of 0.5 mm thick colour galvalume sheet <b>flashings</b> hood / ridges/ triangular portion closers to require shape with self threaded screws etc. complete as directed.	28.00	Sq.M	900.00	25200.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
32	Supply and fixing <b>North Light curves</b> 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.	594.00	Sq.M	720.00	427680.00
33	Providing and fixing <b>barge boards</b> in required girth (200 mm horizontal, 200 mm vertical) with 0.50 mm color galvalume sheets upto a length of 2.50 M, fixed to steel members with self drilling / self stitching fasteners at maximum 500 mm c/c along the length of capping, flashing etc., complete as directed by Engineer-in-charge including the cost of galvalume sheets, fixtures, fittings etc., complete.	61.00	Sq.m	800.40	48824.40
34	Fixing <b>52 Kg rails</b> 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 at their stores).	25.40	MT	6000.00	152400.00
35	Erection and fixing to line, level and grade CR 120 Rail including supplying and fixing of special clamps, nuts washers etc., complete all as per drawings. Only special clamps for CR120 Rail and <b>crane rails will be issued free of cost by B.H.E.L</b> at their stores. Special clamps and bases shall be welded at 450 mm centre to centre to approximately to the crane girders after aligning the rail. Alignment of crane rail shall be as per BIS code of practice (7215 / 1974). The rail shall be welded with suitable electrodes and shall conform to BIS specifications. The agency shall procure him self the electrodes specially required for welding the rail.	32.00	MT	12579.00	402528.00
36	Supplying and fixing <b>fiber reinforced acrylic roofing sheets</b> 3 mm thick of light blue / white shade and of approved brand to mach AC corrugations or galvalume tracdeck sheet corrugation including the cost of all materials such as GI 'J' bolts, nuts, washers etc., and fixing at all heights of Factory block complete as directed by Engineer-in-charge.	108.00	Sq.m	1302.00	140616.00
37	Providing and fixing 2 mm thick polycarbonate sheets and anadoised aluminium glazing bars together with accessories complete for North light glazing including cost of all materials, labour etc., complete.	1188.00	Sq.m	2266.15	2692186.20

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
38	Fabrication and fixing in position <b>MS rain water gutter</b> 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.	396.00	RM	464.00	183744.00
39	Supplying and fixing plain PVC pipe of <b>200 mm dia</b> 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	288.00	RM	640.17	184368.96
40	Supply and fixing <b>weldmesh</b> 50 X 50 MM 8 guage.	400.00	Sq.M	253.00	101200.00
41	Casting and placing in position of <b>R.C.C cable trench covers of 75 mm thick</b> 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).	312.00	Sq.m	353.00	110136.00
42	Supply and fixing of various sizes of <b>MS bolts, nuts and washers</b> conforming to IS 1367-1961 including cost of all materials, labour etc., complete.	16.50	MT	49833.00	822244.50
43	Fabrication and <b>fixing M.S. Angles</b> 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).	4.50	MT	3500.00	15750.00
44a	Construction of <b>Rectangular Manhole</b> 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 <sup>nd</sup> 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 inposition of RCC cover for the manhole. (M.S. Angle, will be issued free of cost). _ Manholes upto 1.50M to 2.00M.	6.00	Each	12000.00	72000.00
b	Same as above but with internal dimensions of 0.60 x 0.90 M upto 1.00 M depth.	12.00	Each	9000.00	108000.00
45a	Providing and laying non-pressure NP2 class (light duty) <b>R.C.C. pipes</b> 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	180.00	RM	258.20	46476.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
b	-----do -----for 300 mm dia RCC pipe.	124.00	RM	338.75	42005.00
c	-----do -----for 450 mm dia RCC pipe.	64.00	RM	499.55	31971.20
46	<b>Grouting</b> with cement mortar 1:1 including cost of all materials, labour, curing, for all leads and lifts etc; complete.For pockets	8.75	Cu.m	6016.56	52644.90
47	Painting with <b>bitumen paint</b> 80/100 grade @ 1.2 kg/sq.m. for construction joints of flooring slab.	99.00	Sq.m	30.00	2970.00
48	Providing 12 mm thick <b>mastic pad</b> of 25mm depth in flooring construction joints including cost of all materials and labour	666.00	RM	10.40	6926.40
49	Fixing <b>screed bars</b> 40 x 25 mm size over concrete pedestals of column foundation .including cost of fixing in position, labour etc., complete as directed MS plates acryline, oxygen will be issued free of cost by BHEL at their stores. The agency shall cut the plates at the required size.	172.00	RM	60.00	10320.00
50	Supply and fixing 12 x 25 mm thick <b>teak wood reaper</b> in the dummy of RCC flooring.	660.00	RM	14.00	9240.00
51	Fixing of <b>IRC fabric</b> in flooring concrete. (Only labour charges) IRC fabric will be supplied free of cost by BHEL at their stores).	3960.00	Sq.m	36.30	143748.00
52	Fabrication and fixing of <b>M.S holding down bolts</b> , 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)	12.24	MT	26476.30	324069.91
53	Dismantling <b>brick masonry</b> 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.	129.00	Cu.m	355.88	45908.52
54	Dismantling <b>reinforced cement concrete / plain cement concrete</b> and disposing of debries upto to a lead of 2 KM including loading, unloading and spreading as directed by Engineer-in-charge etc., complete.	84.00	Cu.m	582.68	48945.12
55	Fabrication and fixing <b>inserts</b> in concrete wall with lugs of required dia welded to the insert plates.(St. Steel,electrodes and gas required for work will be issued on free of cost by BHEL at their stores)	9.60	MT	3500.00	33600.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
56	Dismantling <b>steel work</b> in built up sections in angles tees, flats and channels including all guest plates, bolts, cutting rivets, welding etc., including dismembering and stacking within 50 metres lead.The steel sections like trusses columns etc should be dismantled in such a manner so that it can be reused wherever required as directed by Engineer -in-charge.	34.00	MT	890.11	30263.74
57	Supply and fixing of Electrical operated rolling shutters, Shutter curtain made out of Aluminum Double side Wall with 125 mm, ID " C " class Pipe side Guide 125x2.5 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 Crompton Induction Motor 3 Phase with Limit Switch and Reversible Switch make of Bharat Cutter. One coat of Red Oxide paint ,proper locking arrangement. confirming to IS 6248 including scaffolding and electrical (wiring including operating switch to operate the rolling shutter) cost of all materials. The measurement will be made on finished item of the work for payment.(The Shutter curtain is made out of Aluminum and all the other items are made out of MS) approximate size 6mx6m .VAT extra as applicable will be reimbursed by BHEL on production of valid documents.	147.00	sqm	8100.60	1190788.20
58	Supply and fixing of new urinary pans, "Parry ware" make, ceramic, Model (Cat 0575)- "New Magnum <b>Urinal</b> " (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.	8.00	Each	3933.00	31464.00
59	Supply and fixing with "Parry ware" make Cascade series <b>wash hand basin</b> 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 .	6.00	Each	2024.00	12144.00
60a	Supply and fixing of new "Parry ware" make <b>Indian Water Closet, Orissa pan</b> of size 580 mm x 410 mm - Open rim (Code No. C0109) including PVC Slimline Dual Flush tank (Cistern) of size 475 mm x 318 mm (Code No. C8109) with all accessories like Parryware flush kit suitable for the above flush tank with all required accessories etc., complete. Colour: Silky Off - White.	4.00	Each	3000.00	12000.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
b	Supply and fixing of new "Parry ware" make Elite - European water closet of size 530 mm x 400 mm, with "P/S" trap including PVC Slimline Dual flush tank (Cistern) of size 475 mm x 318 mm (Code No. C8109), EWC standard seat cover (Cat C8071) with all accessories like Parryware flush kit suitable to the above flush tank, brackets, screws, connecting pipe from flush tank to EWC, PVC Connections etc. complete. Colour: Silky Off - White.	3.00	Each	2000.00	6000.00
61	Supply & fixing of 6 mm thick <b>mirror</b> 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.	3.20	Sq.m	1445.00	4624.00
62	Supply & fixing of <b>PVC door</b> 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.	16.50	Sq.m	2925.20	48265.80
63	Supply and fixing in position medium <b>teak wood door</b> 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. approx size of door 2.1mx1m	8.50	Sq.m	3180.00	27030.00
64	Supply & fixing "Jaquar" make <b>urinal flushing valves</b> for urinal pots in all accessories/Cat: 1077.	8.00	Each	1320.00	10560.00
65	Supply & fixing "Marc" make oyster series brass <b>bib cocks</b> . With all accessories / Cat: MOY 1030.	11.00	Each	506.00	5566.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
66	Supply & fixing "Marc" make oyster series brass <b>pillar cocks</b> . (Cat: MOY 1010) with all accessories etc.	10.00	Each	519.00	5190.00
67	Supply & fixing "Marc" make oyster series brass <b>stop cocks</b> . (Cat: MOY 1040) with all accessories.	17.00	Each	698.00	11866.00
68	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.	157.00	Sq.m	196.00	30772.00
69	<b>Supplying and laying of vitrified tiles</b> 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 600mm (± 5 mm) of approved make by BHEL. It includes cost of inclusive of 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.	144.00	Sq. m.	950.00	136800.00
70	Providing and fixing 1st quality ceramic <b>glazed wall tiles</b> 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.	154.00	Sq.m	556.80	85747.20
71	Supply & fixing of <b>18 mm thick</b> best quality approved colour and design machine cut <b>mirror polished granite slabs</b> 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.	40.00	Sq.m	3070.92	122836.80
72	Supply & fixing in position <b>PVC Pipes</b> 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.	98.00	RM	108.70	10652.60

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
73	Supplying and fixing CI <b>Nahany traps</b> 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.	12.00	Each	200.00	2400.00
74a	Supply & fixing <b>15 mm dia Nominal Bore GI pipe medium Grade properties</b> 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.	90.00	RM	131.00	11790.00
b	.. Do... 20mm dia (3/4")	88.00	RM	146.00	12848.00
c	.. Do... 25mm dia (1")	192.00	RM	191.00	36672.00
d	.. Do... 80mm dia (3") including trenching and refilling	324.00	RM	458.15	148440.60
75a	Supply & fixing of Gunmetal Gate ( <b>GM peet</b> ) <b>valve</b> as per IS -778 class-I, Indian make heavy type 15 mm (1/2") dia NB size.	10.00	Each	242.00	2420.00
b	.. Do .. 20mm dia (3/4")	12.00	Each	327.00	3924.00
c	..do ...25mm dia (1")	14.00	Each	482.00	6748.00
d	..do ...80mm dia (3")	4.00	Each	3906.00	15624.00
76	Supplying ,laying ,jointing and testing 152.4 mm (6") <b>SWG pipes</b> 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.	80.00	RM	254.00	20320.00
77	<b>Supplying ,laying ,jointing and testing 101.60 mm (4") SWG pipes</b> 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 914.40 mm(3' 0") depth and refilling with watering and tamping.	6.00	RM	149.00	894.00
78a	Construction of <b>brick masonry chamber</b> 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.	5.00	Each	3226.00	16130.00

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
b	Construction of <b>brick masonry chamber</b> 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 <b>gully trap</b> 150 mmx100mm including cost of excavation, PCC 1:4:8, 75 mm thick, all materials, labour etc., complete.	3.00	Each	321.00	963.00
79	<b>Supply and Fixing PVC Ventilating</b> cowl of 110 mm dia.	2.00	Each	14.00	28.00
80	Supplying and fixing position <b>PVC tank</b> 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	2.00	Each	6000.00	12000.00
81	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 - girth diameter 60cm up to 120cm.	40.00	Each	359.80	14392.00
82	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.	10.00	Cu.m	582.68	5826.80
83a	<b>Removal of waste product</b> loading into the vehicle and unloading the same at specified yards as directed by the Engineer-in-charge. The vehicle shall be weighed before and after loading for each trip at BHEL weigh bridge. The rate quoted shall include cost of hire charges of vehicle, labour, tools, safety equipment etc., complete. Payment will be made against the weight of the materials disposed: <b>-for wood scrap</b>	35.00	MT	508.00	17780.00
b	do <b>-for MS scrap</b> including MS packing strips, small empty drums of 5 ltrs to 20 ltrs in capacity etc.	120.00	MT	381.00	45720.00
c	do <b>-for garbage</b> , including oil soaked cotton waste, dry packing grass, packing cartoons and waste papers etc.	35.00	MT	655.00	22925.00
d	do-for Pipes & MS matl from pipe yard	100.00	MT	381.00	38100.00
84	Dismantling manually /by mechanical means including stacking of serviceable material and disposal of unserviceable material within a lead of 50 m as directed by Engineer-in-charge- <b>for bituminous road</b>	100.00	Sq.M	66.30	6630.00
85	supplying and fixing 24" aluminium <b>turbo ventilators</b> over self supported arched sheet roofing .	20.00	Each	11133.00	222660.00
86	<b>Making connection</b> of G.I.distribution branch with G.I. main of 50-80mm size by providing and fixing Tee including cutting and threading the pipe etc.complete.	1.00	Each	423.20	423.20

SN o	Description of the item	Cumm. Qty.	Unit	Rate (Rs)	Amount (Rs)
87	Site levelling with general excavation upto a depth of 300 mm and carting away the excavated solis to a lead of 2 km including loading , unloading and spreading etc; complete.	1200.00	sq.m	89.00	106800.00
<b>Total Rs.</b>					<b>71,565,262.56</b>
<b>Total : Rs. Seven Crores fifteen Lakhs sixty five thousand two hundred and sixty three only.</b>					

**Service Tax:-** The Service tax as applicable is extra which will be paid by BHEL to the agency after submission of necessary valid documents by the agency.

**Note :** The Tenders are required to quote the tender value on percentage (%) basis at excess or less or on as per estimate value

Tender %	In figure	In words
Excess		
Less		
Estimated Rate only		

- 1 The Soil Investigation tests are to be carried out by the Contractor if required as per site condition. The agency should bear the above expenditure.
- 2 The contractor has to submit duty paying documents of the items mentioning consignee as BHEL mentioning their procurement value irrespective of their quoted/agreed value especially for Galvaume sheets, Polycarbonate sheets, NCL windows and Al rolling shutters, otherwise proportionate amount to be recovered.
- 3 The Ready mix concrete(RMC) rate has been worked out based on the present market rate Rs 144.00 per bag. Any increase /decrease in the Cement rate the same shall be reimbursed/recovered by BHEL.

Name of the Contractor :

Signature of the Contractor

Accounts Representative

Opening officer