



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

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-01/2011-12, Dt:- 07.04.2011

PRICE BID

Item no : 1

Name of work: Construction of Foundations for Stack pit, 90T balancing machine and spin tester in GT complex.

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|------|---|--------|------|-----------|-------------|
| 1a | Earth work in excavation in all soils 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. | 307.00 | Cu.m | 103.40 | 31743.80 |
| 1b | ----do---- up to First additional depth of 1.50 M to 3.00 M. | 227.00 | Cu.m | 122.30 | 27762.10 |
| 1c | ----do---- up to second additional depth of 3.01 M to 4.50 M. | 147.00 | Cu.m | 141.20 | 20756.40 |
| 1d | ----do---- up to third additional depth of 4.51 M to 6.00 M. | 172.00 | Cu.m | 160.10 | 27537.20 |
| 1e | ----do---- up to fourth additional depth of 6.01 M to 7.50 M. | 18.00 | Cu.m | 179.00 | 3222.00 |
| 1f | ----do---- up to fifth additional depth of 7.51 M to 9.00 M. | 18.00 | Cu.m | 197.90 | 3562.20 |
| 1g | ----do---- up to sixth additional depth of 9.01 M to 10.50 M. | 18.00 | Cu.m | 216.80 | 3902.40 |
| 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 Hard Rock (Blasting prohibited). | 325.00 | Cu.M | 325.25 | 105706.25 |
| 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). | 38.00 | Cu.M | 2449.00 | 93062.00 |
| 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). | 129.00 | Cu.M | 3732.00 | 481428.00 |

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|------|---|---------|---------|-----------|-------------|
| 4b | 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 floor five level with 1:1½ :3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size). | 5.00 | Cu.m | 4092.35 | 20461.75 |
| 5 | 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 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. M 25 grade Reinforced cement concrete by using 380 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 211.00 per bag. | 516.00 | Cu.m | 4070.40 | 2100326.40 |
| 6 | Providing & laying in position specified grade of Reinforced Cement concrete excluding the cost of centering, shuttering, finishing & reinforcement - all works upto plinth level with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) | 1.00 | Cu.m. | 3359.00 | 3359.00 |
| 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. | 52.00 | M.T | 42700.00 | 2220400.00 |
| 8a | Centering and shuttering including strutting, propping etc; and removal of form work, for columns, pillars, peirs, abutments, machine foundations, posts and struts. for up to plinth level. | 1112.00 | Sq.M | 180.40 | 200604.80 |
| 8b | Centering and shuttering including strutting, propping etc; and removal of form work, for columns, pillars, peirs, abutments, machine foundations, posts and struts.- for above plinth level. | 35.00 | Sq.m | 187.35 | 6557.25 |
| 9 | Grouting with cement mortar 1:1 including cost of all materials, labour, curing for all leads & lifts etc: complete. For pockets | 1.00 | cum | 6016.56 | 6016.56 |
| 10 | Grouting of bolt pockets with FOS rock of specified proportion by the manufacturer, including cost of labour and incidentals etc. (The FOS rock will be supplied free of cost by BHEL at their stores) | 7.00 | one cum | 603.60 | 4225.20 |
| 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. | 25.00 | Cu.M | 2463.60 | 61590.00 |
| 12 | 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. | 321.00 | Sq.m | 95.10 | 30527.10 |

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|------|---|--------|------|-----------|-------------|
| 13 | 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) . | 55.00 | Sq.m | 107.80 | 5929.00 |
| 14 | Conveyance of excavated spoil up to a lead of 2 Kms, including loading, unloading and spreading etc. complete as directed by Engineer- in- charge. | 665.00 | Cu.M | 56.41 | 37512.65 |
| 15 | 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 m. | 334.00 | Cu.M | 45.70 | 15263.80 |
| 16 | Applying two coats of oil bound distemper of given shade over a coat of primer including through cleaning of the surfaces, cost of all labour and other incidentals. (Only OBD, OBD Primer Paint will be issued by BHEL on FREE of cost at their stores) | 257.00 | Sq.m | 29.00 | 7453.00 |
| 17 | Finishing with Epoxy paint (two or more coats) of ASIAN or BERGER make 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. | 380.00 | Sq.M | 77.75 | 29545.00 |
| 18 | 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. | 35.00 | Sq.m | 485.00 | 16975.00 |
| 19 | Supplying and fixing position 40 mm thick fibre glass covered by cotton cloth (netted) fixed in position and covered with aluminium perforated sheet above the insulation for the foundation including fixtures and accessories and cost of all materials, labour etc., complete. Rock wool shall be of standard quality. | 130.00 | Sq.M | 580.00 | 75400.00 |
| 20 | Supply and fixing in position 60 mm thick / 30 mm thick in two layers thermocoal including cost of materials, labour etc., complete. | 130.00 | Sq.M | 426.00 | 55380.00 |
| 21 | Fabrication and fixing inserts 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) | 4.70 | MT | 3500.00 | 16450.00 |
| 22 | Supplying and fixing plain PVC pipe of 150mm dia of 6 kg's/cm² 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 to MS gutters, including cost of all materials, sealing compound ,labour etc., for all heights complete | 1.00 | RM | 286.00 | 286.00 |
| 23a | Supplying and fixing plain PVC pipe of 200mm dia of approved quality with specials, accessories and approved sealing/jointing compound on the exterior of the inserted portion of fitting and fixing in position and joining MS gutters, including cost of all materilas, sealing compound, labour etc, for all heights complete | 1.00 | RM | 640.17 | 640.17 |
| 23b | ----do----- 100 mm dia | 1.00 | RM | 140.00 | 140.00 |

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|------|---|-------|------|-----------|-------------|
| 24 | Applying protective coating to isolation joint on top side with bituman of 30/40 grade including cost of all materials, labour etc., complete. | 8.00 | Sq.m | 600.00 | 4800.00 |
| 25 | 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 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 flooe properly fixed at ends to walls, cost of aluminium section , labour etc; Complete .(The door opening shall be deducted for payment). | 45.00 | sq.m | 1316.00 | 59220.00 |
| 26 | Supply & fixing of full height aluminium door with double leaf manual slide opening mechanism 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 Nos. and the approximate size of the door is 7' x 6') | 8.50 | Sq.m | 4000.00 | 34000.00 |
| 27 | Supply & fixing 5.5 mm thick plain / ground glass to the aluminium frame with rubber beeding screwless snap on clips etc. complete | 45.00 | sq.m | 668.00 | 30060.00 |
| 28 | Supply and fixing 12 mm thick pre-laminated particle board for doors with both side laminated exterior grade fixed to frame with rubber beading screw less snap on clips etc., complete. | 15.00 | sq.m | 606.00 | 9090.00 |

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|------|--|-------|------|-----------|-------------|
| 29 | <p>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,</p> <p>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</p> | 15.00 | Sq.m | 1130.00 | 16950.00 |
| 30 | Supply and filling in plinth with river sand including watering, ramming consolidating and dressing complete | 1.00 | Cu.M | 985.00 | 985.00 |
| 31 | 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. | 40.00 | RM | 3300.00 | 132000.00 |
| 32 | Supply and fixing of aluminum window grills of size 1.50 Mx1.80M approx and 1.20 mx1.80M approx . 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) | 5.00 | Sq.m | 1540.00 | 7700.00 |
| 33 | Drilling of bore holes of 6½" upto a depth of 40 feet deep below ground including labour, transportation etc. complete. | 60.00 | RM | 1948.00 | 116880.00 |

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|------|---|------|------|-----------|-------------|
| 34 | Fabrication of structural steel work including all materials going into the process of fabrication and forming and integral form of steel work together with all shop & 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 3 coats of red oxide as per IS specifications and all charges for handling, leading & loading at the fabrication yard.The rate includes cost of electrodes ,gases etc., the raw structural steel sections will be issued free of cost at BHEL stores. | 1.00 | MT | 7563.80 | 7563.80 |
| 35 | Erection of Steel work outlined in item no 3a 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 required. | 1.00 | MT | 3241.60 | 3241.60 |
| 36 | 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. | 2.20 | MT | 596.50 | 1312.30 |
| 37 | Fabrication and erection of structural steel for temporary barrication purpose of 2.0 mtrs height at floor level with one coat of red oxide primer. All materials required will be issued free of cost by BHEL at their stores | 1.00 | MT | 4972.00 | 4972.00 |
| 38 | Fixing of AC sheets for barication purpose with J bolts,nuts,AC sheets will be issued free of cost by BHEL at their stores. | 1.00 | Sq.m | 20.95 | 20.95 |
| 39 | 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. | 1.00 | Cu.m | 582.68 | 582.68 |
| 40 | Dismantling brick masonry walls for all heights , removing and clearing debris and carting away upto a lead of 2 km including loading, unloading and spreading segregating useful material as directed by engineer in charge including the cost of all labour, scaffolding etc., complete | 1.00 | Cum | 355.88 | 355.88 |
| 41 | Dismantling steel work 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.(Clamping Bars, May Pole etc). | 1.00 | MT | 890.11 | 890.11 |

| S No | Description of the item | Qty | Unit | Rate (Rs) | Amount (Rs) |
|---|--|-------|------|------------------|---------------------|
| 42 | Removal of wood/M S Scrap including MS packing strips loading into the vehicle and unloading the same at specified yards as directed by Engineer in charge. The vehicle shall be weighed before and after loading for each trip at BHEL weigh Bridge. The quoted rate shall include cost of hire charges of vehicle, labour, tools, safety eqpt etc., complete. Payment will be made against the weight of material disposed. | 1.00 | MT | 381.00 | 381.00 |
| 43 | 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 (\pm 5mm)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. | 30.00 | Sq.m | 950.00 | 28500.00 |
| Total Value of work | | | | Total Rs: | 61,73,230.35 |
| Total : Rs.Sixty one lakhs seventy three thousand two hundred thirty only. | | | | | |

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 bidders are required to quote the tender value on percentage (%) basis at excess or less on par with estimate value

| Tender % | In figure | In words |
|-----------------|-----------|----------|
| Excess | | |
| Less | | |
| Estimated value | | |

Name of the Contractor :

Signature of the Contractor

Accounts Representative

Opening officer