



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

**SCHEDULE- A**

Tender Notice No:

HY/FCD/OT-15/2013-14, Dt: 13.01.2014

**PRICE BID**

Item no.: 2

**Name of work:** Civil works for providing of Foundation for 4T boiler on west side of 02 block.

| S. No. | Description of the item                                                                                                                                                                                                                                                                                                                                        | Qty    | Unit | Rate (₹) | Amount (₹) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|----------|------------|
| 1      | <b>Dismantling reinforced cement concrete</b> / plain cement concrete and disposing of debris upto to a lead of 2.00 KM including loading, unloading and spreading as directed by Engineer-in-charge etc., complete.                                                                                                                                           | 64.00  | Cu.m | 1,054.10 | 67,462.40  |
| 2      | <b>Dismantling 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 2.00 KM lead.                                                                                                                                                | 1.00   | MT   | 1,616.80 | 1,616.80   |
| 3      | 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 - <b>Beyond 60 cm girth up to and including 120 cm depth.</b>                                                                             | 3.00   | Each | 654.95   | 1,964.85   |
| 4      | <b>Earth work in excavation in all soils</b> by mechanical means (Hydraulic Excavators) / manual means in foundations trenches or drains including dressing of sides and ramming of bottoms, including getting out the excavated soil and disposal of surplus excavated soil as directed , within a lead of 50M. <b>lift upto 1.5m</b>                         | 383.00 | Cu.m | 103.40   | 39,602.20  |
| 5      | <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.                                                                                                                                                                                                      | 116.00 | Cu.M | 56.41    | 6,543.56   |
| 6      | <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.                                                                                                      | 267.00 | Cu.M | 45.70    | 12,201.90  |
| 7      | 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 <b>1:4:8</b> (1 cement : 4 coarse sand : 8 graded stone aggregate of 20 mm nominal size). <b>The cement will be issued free of cost by BHEL at BHEL stores.</b> | 33.00  | Cu.M | 1,560.50 | 51,496.50  |
| 8      | Coursed rubble masonry in second sort with hard stone in foundation & plinth with cement mortar 1:6 (1 cement :6 coarse sand) - <b>The cement will be issued free of cost by BHEL at BHEL Stores.</b>                                                                                                                                                          | 15.00  | Cu.M | 1,521.00 | 22,815.00  |

| S. No. | Description of the item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Qty    | Unit | Rate (₹) | Amount (₹)  |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|----------|-------------|
| 9      | 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 admixtures 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 380 kgs of cement per cu.m of concrete. All works upto floor V level. as per IS 456: 2000. | 46.00  | Cu.m | 4,192.80 | 1,92,868.80 |
| 10     | 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 admixtures 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 290 kgs of cement per cu.m of concrete. All works upto floor V level.                      | 38.00  | Cu.m | 3,770.28 | 1,43,270.64 |
| 11     | 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 <b>1:2:4</b> (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size). <b>The cement will be issued free of cost by BHEL at BHEL stores.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 48.00  | Cu.m | 1,687.00 | 80,976.00   |
| 12     | <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. - <b>The steel will be issued free of cost by BHEL at BHEL Stores.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7.80   | M.T  | 4,003.00 | 31,223.40   |
| 13     | <b>Centering</b> and shuttering including strutting, propping etc.; and removal of form work, for walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc. <b>upto plinth level.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 627.10 | Sq.M | 180.40   | 1,13,128.84 |

| S. No. | Description of the item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Qty    | Unit   | Rate (₹)  | Amount (₹)  |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|-----------|-------------|
| 14     | 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. <b>The raw structural steel sections, electrodes, gasses will be issued by BHEL on FREE of cost at their stores.</b> | 16.00  | MT     | 7,563.80  | 1,21,020.80 |
| 15     | Erection of Steel work out lined in item No.14 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 16.00  | MT     | 3,241.60  | 51,865.60   |
| 16     | Painting at site of all structural steel work with 2 coats of aluminium paint / synthetic enamel paint over a coat of redoxide primer of approved shade to trusses, columns, girders, bracings etc., with aluminium paint or synthetic enamel paint over a coat of redoxide as required etc., complete. <b>The required paint only will be issued free of cost by B.H.E.L at BEL stores.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 16.00  | MT     | 596.50    | 9,544.00    |
| 17     | <b>Supplying and fixing of various sizes of MS bolts,nuts</b> and washers conforming to IS 1367-1961 including cost of all materials, labour etc., complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.50   | One MT | 86,550.00 | 43,275.00   |
| 18     | <b>Fabrication and fixing inserts</b> in concrete wall with lugs of required dia welded to the insert plates. (Structural steel, electrodes and gas required for work will be issued on free of cost by BHEL at BHEL stores).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.00   | MT     | 3,500.00  | 17,500.00   |
| 19     | Fixing of <b>Non - colour Coated aluminium zinc alloy coated metallic hirib profile sheet of nominal 1015-1020mm effective cover width and 28-30 mm</b> 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 galvanised hex head self drilling screws with integral washers and EPDM seals (4 fastners for support) for sheet etc., complete as directed (Excluding cost of galvalume sheets which will be issued free of cost by BHEL at their stores) - For roofing, side cladding and louvers with necessary fixtures.                                                                                                                                                                                                                                                                                                                                                                                                          | 377.00 | Sq.m   | 100.00    | 37,700.00   |
| 20     | Supplying and fixing <b>fiber reinforced acrylic roofing sheets</b> 3 mm thick of light blue / white shade and of approved brand to match 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 32.00  | Sq.m   | 1,302.00  | 41,664.00   |

| S. No. | Description of the item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Qty    | Unit | Rate (₹) | Amount (₹) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|----------|------------|
| 21     | <b>Supply &amp; 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.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             | 14.00  | Sq.M | 900.00   | 12,600.00  |
| 22     | 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 - <b>450mm dia R.C.C pipe.</b>                                                                                                                                                                                                                                                                                                                                                                                      | 10.00  | RM   | 499.55   | 4,995.50   |
| 23     | 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 <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 in position of RCC cover for the manhole. (M.S. Angle, will be issued free of cost). _ Manholes upto 1.50M to 2.00M. | 2.00   | Each | 7,556.00 | 15,112.00  |
| 24     | 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.                                                                                                                                                                                                                                                                                                             | 10.00  | RM   | 526.00   | 5,260.00   |
| 25     | Brick work with Ground moulded clay FPS brick in super structure above plinth level upto floor five level in cement mortar 1:6 (1 cement : 6 Coarse sand). - <b>The cement will be issued free of cost by BHEL at BHEL Stores.</b>                                                                                                                                                                                                                                                                                                                                                                                                            | 15.00  | Cu.M | 2,104.00 | 31,560.00  |
| 26     | Plastering in <b>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. - <b>The cement will be issued free of cost by BHEL at BHEL Stores.</b>                                                                                                                                                                                                                                                                                                                                                                                         | 108.00 | Sq.m | 65.80    | 7,106.40   |
| 27     | Applying <b>exterior</b> emulsion paint 2 coats over one coat of primer to external new plastered surfaces including cost of all labour and other incidentals. ( <b>only exterior paint will be issued by BHEL on free of cost</b> ).                                                                                                                                                                                                                                                                                                                                                                                                         | 108.00 | Sq.m | 20.55    | 2,219.40   |
| 28     | <b>Supply and fixing of GI Chain Link Mesh 50mm aperture:</b><br>Supply and fixing of Hot dipped Galvanised Iron Chain ling mesh 8 gauge-(4.0mm) as per IS:2721-1979-PVC coated-2"x2"(50mmx50mm)-8 Gauge. The rate includes all the tools, machinery and labour charges etc. required for fixing as directed by Engineer-In-Charge.                                                                                                                                                                                                                                                                                                           | 96.00  | Sq.m | 537.00   | 51,552.00  |
| 29     | 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, cutting bending, neat finishing, cost of labour, etc. complete as directed. (MS angles, electrodes, cement, and MS Reinforcement shall only will be issued on free of cost by BHEL at BHEL stores).                                                                                                                                                                                                                                                               | 100.00 | Sqm  | 249.00   | 24,900.00  |

| S. No.                                                                                        | Description of the item                                                                                                                                                                                                                                                                                                                                                                                                            | Qty      | Unit | Rate (₹) | Amount (₹)          |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|----------|---------------------|
| 30                                                                                            | Supply & Fixing of 50 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings over the Trestles and providing the clamps for proper fixing of the pipes. The rate includes the cost of pipe, its fittings & labour charges for fixing at the height of the trestles and clamps etc. as directed by Engineer-In-Charge. Thickness of GI pipe shall be 3.6mm.<br><b>Make: JINDAL, TATA</b> | 1,300.00 | RM   | 427.00   | 5,55,100.00         |
| 31                                                                                            | Supply & Fixing of Gunmetal Gate (GM peet) valve as per IS - 778 Class - I, Indian make heavy type - 50 mm NB Size over the Trestles for the above Pipe lines.                                                                                                                                                                                                                                                                     | 7.00     | Each | 2,055.00 | 14,385.00           |
|                                                                                               | <b>Total value of work</b>                                                                                                                                                                                                                                                                                                                                                                                                         |          |      | ₹        | <b>18,12,530.59</b> |
| <b>Total : ₹ Eighteen lakhs twelve thousand five hundred thirty and fifty nine paise only</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |      |          |                     |

**Note:**

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|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | A penalty of 0.5% of the gross value of work will be levied for every week's delay of work or part there of subject to a maximum penalty of 10% of gross value of the total work executed. |
| 2 | Rates quoted shall be firm throughout the period of the contract and <b>no price escalation</b> is payable under this contract on any account.                                             |
| 3 | The rates are inclusive of all taxes and duties except Service tax, which is extra as per service tax norms will be paid by BHEL to the agency after submission of necessary documents.    |

**Note :** The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

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