

APPROXIMATE BILL OF QUANTITIES FOR CIVIL , STRUCTURAL AND ARCHITECTURAL WORKS

Please note that 'IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT, REINFORCEMENT STEEL AND STRUCTURAL STEEL ON FREE ISSUE BASIS.'

| Civil, Structural & Architectural Work For AFBC Boiler Control Room | | | | | |
|---|---|------|--------------------|---------------------------|-------------|
| A | CIVIL & STRUCTURAL | | | | |
| SL # | ITEM DESCRIPTION | UNIT | Estimated Quantity | Tentative Unit Rate (Rs.) | AMOUNT (Rs) |
| 1.0 | Earth Work | | | | |
| 1.1 | Earth work in EXCAVATION below ground level for all kinds of works in ALL TYPES OF SOILS EXCEPT SOFT ROCK AND HARD ROCK upto a depth of 3.0m including removal of vegetation, shrubs and debris, cutting and dressing of sides in slopes, levelling, grading and ramming of bottoms, dewatering of accumulated water from any source during excavation and keeping the surface dry for subsequent works and stacking of good excavated material within IFFCO premises for backfilling as per direction of Owner including providing temporary supports to existing service lines like water pipes, sewage pipes, electric overhead and underground cables etc. and disposal of excess un-used material to low lying area with dressing / levelling all complete, but including shoring and strutting. | Cum | 2600 | 182 | 473200.00 |
| 1.2 | BACKFILLING after execution of the WORK to proper grade and level with selected materials from available excavated soil from soil heaps within IFFCO premises, including re-excavating the deposited soil excavated earlier, breaking clods, laying at all depths and heights in layers of thickness not exceeding 15 Cms. watering, rolling and ramming by manual methods/ mechanical compactors to achieve 90% laboratory maximum dry density, dressing, trimming etc. in foundations, plinths, trenches, pits etc. all complete. | Cum | 2000 | 220 | 440000.00 |
| 1.3 | Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating to achieve 90% of proctor density and dressing complete in all respect as per direction of Owner. | Cum | 500 | 1954 | 977000.00 |
| 2.0 | PILING | | | | |
| 2.1 | Casting of 600 mm Dia using M30 grade concrete by conventional method using Tripods, Bailer, Chisel, Piling Rigs and Drilling Mud Circulation (DMC) System for stabilization of boreholes' sides beyond Guide Casing, including all Labour, Supervision, Services, Materials, Piling Equipment, Tools, Plants, Transportation, Mobilisation, Demobilisation, cleaning, etc., Price shall include all surveying and setting out arrangements necessary for fixing correct locations of piles. The measurements shall be in accordance with IS 1200. Price shall include breaking of Pile heads upto cut-off levels. The RCC work shall be by design mix M30 as per IS:10262 with 20mm down and 12.5 retain, and 10mm down crushed stone as coarse aggregate, coarse sand, including cost of casting, curing and test of concrete, etc. all complete including all labours, materials, transportation, loading, Unloading, tools and tackles, equipment, etc. as directed by owner. ALL MATERIALS EXCLUDING CEMENT SHALL BE SUPPLIED BY THE CONTRACTOR, IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | RM | 2900 | 2535 | 7351500.00 |
| 2.2 | Fabricating & fixing in position reinforcement for RCC work for Piles with bars of various diameters and steel grade including cutting, providing, bending, hoisting, fabricating and placing in position according to drawings and binding the reinforcement with GI annealed binding wire in two strands of 18 gauge and providing cover blocks for placing the reinforcements in position and for maintaining the cover specified and/or according to relevant IS. Code. ALL MATERIALS EXCLUDING REINFORCEMENT SHALL BE SUPPLIED BY THE CONTRACTOR, IFFCO (OWNER) SHALL SUPPLY REQUIRED REINFORCEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | T | 120 | 18700 | 2244000.00 |
| 2.3 | Vertical load testing of pile(s) in accordance with IS: 2911 (Part-IV) including installation of loading platform by Kentledge method and preparation of pile heads or construction of test caps and dismantling of test cap after test etc. complete as per the direction of Owner. Testing agency shall submit the design of loading platform for the approval of Owner. Initial test on Single pile of safe capacity 50 to 100 T. | Nos | 1 | 60210 | 60210.00 |
| 2.4 | Vertical load testing of pile(s) in accordance with IS: 2911 (Part-IV) including installation of loading platform by Kentledge method and preparation of pile heads or construction of test caps and dismantling of test cap after test etc. complete as per the direction of Owner. Testing agency shall submit the design of loading platform for the approval of Owner. Routine test on Single pile of safe capacity 50 to 100 T. | Nos | 1 | 30775 | 30775.00 |
| 2.5 | Lateral load testing of single pile in accordance with IS: 2911 (Part-IV) for determining safe allowable lateral load on pile. Initial Test | Nos | 1 | 20070 | 20070.00 |
| 2.6 | Integrity testing of Pile using low strain / sonic integrity test / sonic eco test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc and use of computerised equipment and high skilled trained personnel for conducting the test and submission of results all complete as per direction of Owner. | Nos | 130 | 940 | 122200.00 |
| 3.0 | PCC, SOLING, RCC, REINFORCEMENT, SHUTTERING | | | | |
| 3.1 | Providing and laying PLAIN CEMENT CONCRETE for all depths below and upto plinth level in foundations, drains, fillings, non-suspended floors, beams, pavements & ramps or any other works etc. including shuttering, tamping, ramming, vibrating, curing, etc. all as directed in any shape, position, thickness and finishing the top surface rough or smooth as directed all complete for concrete of nominal mix M10 with 20mm and down size graded crushed stone aggregates. ALL MATERIALS EXCLUDING CEMENT SUPPLIED BY THE CONTRACTOR, IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | Cum | 175 | 4760 | 833000.00 |
| 3.2 | Providing and laying rubble soling of required thickness with 40mm down aggregate (from crushed stone or crushed rock and free from deleterious material. It shall comply with the requirements of IS-383), interspaces filling with sand, rammed, compacted & consolidated having 90% of dry density including dressing of earth before laying, watering etc., under the grade slab and open foundation all complete including cost of all materials, machinery, labour, all leads and lifts etc., complete as directed by the Owner. | Cum | 330 | 1327 | 437910.00 |
| 3.3 | Providing and laying REINFORCED CEMENT CONCRETE OF M-30 GRADE with 20mm and down size graded crushed stone aggregates including mixing, laying compacting, curing etc. and direction of Owner in SUBSTRUCTURE (all depths below and upto & inclusive of plinth level) of all types e.g. beams, pile caps, trenches, manholes, pipe encasement, catchpits, drains, RCC pits, equipment/machine foundations, pedestals, pipe sleepers, columns, steps, brackets etc., providing pockets, openings, recesses, chamfering etc., wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface etc. (EXCLUDING THE COST OF REINFORCEMENT AND SHUTTERING) for all depths below and upto plinth level in any shape, position and thickness etc. all complete as directed. ALL MATERIALS EXCLUDING CEMENT SHALL BE SUPPLIED BY THE CONTRACTOR. IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | Cum | 475 | 5760 | 2736000.00 |
| 3.4 | Providing and laying REINFORCED CEMENT CONCRETE OF M-30 GRADE with 20mm and down size graded crushed stone aggregates including mixing, laying, compacting, curing etc. as per drawings and direction of engineer in SUPERSTRUCTURE of all types e.g. beams, slabs, pedestals, pipe sleepers, columns, suspended floors, staircases, landings, steps, brackets etc., scaffolding as required for laying concrete, providing pockets, openings, recesses, chamfering etc., wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface etc. (EXCLUDING THE COST OF REINFORCEMENT AND SHUTTERING) all complete as shown and directed. ALL MATERIALS EXCLUDING CEMENT SHALL BE SUPPLIED BY THE CONTRACTOR. IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | Cum | 1200 | 7150 | 8580000.00 |
| 3.5 | Providing and laying REINFORCED CEMENT CONCRETE OF M-25 GRADE with 20mm and down size graded crushed stone aggregates including mixing, laying compacting, curing etc. as per drawings and direction of Owner in GROUND FLOOR GRADE SLAB, providing pockets, openings, recesses, chamfering, slope, etc., wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface etc. (EXCLUDING THE COST OF REINFORCEMENT AND SHUTTERING) all complete as shown and directed. ALL MATERIALS EXCLUDING CEMENT SHALL BE SUPPLIED BY THE CONTRACTOR. IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | Cum | 160 | 5760 | 921600.00 |

| SL # | ITEM DESCRIPTION | UNIT | Estimated Quantity | Tentative Unit Rate (Rs.) | AMOUNT (Rs) |
|------|--|-------|--------------------|---------------------------|-------------|
| 3.6 | Manufacturing, transporting, supplying and erecting in position Reinforced Cement Concrete PRECAST ELEMENTS such as cover slabs, etc. of M-30 grade with 20mm and down size graded crushed stone aggregates, each unit upto and inclusive of 500 kg. for all leads, levels, shapes and thickness including all moulds, shuttering and centering, vibrating, tamping, curing, chamfering wherever required, finishing the top surface with cement mortar 1:3 (1 Cement : 3 Sand) to give a smooth and even surface, or non skid finish as directed, providing lifting hooks, metal inserts, making holes pockets as per drawing or as required for proper functions, transporting to site, erecting, levelling, aligning and fixing in position with cement mortar 1:3 (1 Cement : 3 Coarse Sand), breaking bricks and/or concrete surfaces and making good the same etc. all complete and as directed by Owner. ALL MATERIALS EXCLUDING CEMENT SHALL BE SUPPLIED BY THE CONTRACTOR. IFFCO (OWNER) SHALL SUPPLY REQUIRED CEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | Cum | 12 | 6565 | 78780.00 |
| 3.7 | Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete in SUBSTRUCTURE upto (and including) plinth level. ALL MATERIALS EXCLUDING REINFORCEMENT SHALL BE SUPPLIED BY THE CONTRACTOR. IFFCO (OWNER) SHALL SUPPLY REQUIRED REINFORCEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | T | 75 | 18700 | 1402500.00 |
| 3.8 | Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete in SUPERSTRUCTURE above plinth level. ALL MATERIALS EXCLUDING REINFORCEMENT SHALL BE SUPPLIED BY THE CONTRACTOR. IFFCO (OWNER) SHALL SUPPLY REQUIRED REINFORCEMENT ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | T | 240 | 18700 | 4488000.00 |
| 3.9 | CENTERING AND SHUTTERING WORK FOR SUB-STRUCTURE | | | | |
| | Providing and fixing CENTERING AND SHUTTERING by suitable combination of PLYWOOD and MS PIPES CUP-LOCK system in foundations, footings, raft beams, slabs, pile caps, trenches, equipment/machine foundations, pedestals, abutments, pipe sleepers, columns, plinth beams, etc. for all depths below and upto & inclusive of plinth level including shuttering for single pour concreting, strutting, bracing, propping etc., keeping the same in position during concreting and removal of the same after specified period etc. for Straight/ Inclined Shuttering, keeping necessary provision for inserts, projecting dowels, anchor bolts or any other fixture etc. all complete and as directed by Owner. | Sqm | 850 | 285 | 242250.00 |
| 3.10 | CENTERING AND SHUTTERING WORK FOR SUPER-STRUCTURE | | | | |
| | Providing and fixing CENTERING AND SHUTTERING by suitable combination of PLYWOOD and MS PIPES CUP-LOCK system in superstructures in equipment/ machine foundations, abutments, columns, lintels, suspended slabs, beams, staircases, landings, steps, etc. for all heights above plinth level including shuttering for single pour concreting, strutting, bracing, propping etc., keeping the same in position during concreting and removal of the same after specified period etc. for Straight/ Inclined Shuttering, keeping necessary provision for inserts, projecting dowels, anchor bolts or any other fixture etc. all complete and as directed by Owner. | Sqm | 7600 | 695 | 5282000.00 |
| 3.11 | SEALANT AND FIBRE BOARD AT GRADE SLAB | | | | |
| | Providing and applying of 25mm wide 40mm deep Polysulphide base sealant and 25mm wide 110mm deep Preformed bitumen impregnated fibre board all complete and as directed by Owner. The brands shall be approved by Owner. | RM | 425 | 1000 | 425000.00 |
| 3.12 | Supplying and mixing of water reducing admixture / plasticizer of approved make (conforming to IS:9103 or ASTM C-494-86) in concrete and / or mortar in proportions as per manufacturer's specification and direction of owner. NOTE: The admixture should have almost nil chloride and sulphate content and shall not cause decrease of strength of concrete at any stage. The admixture should not affect the setting time by more than 5%; maximum permissible dosage of admixture will be 3% by weight of cement and / or as per manufacturer's recommendation. | T | 30 | 38000 | 1140000.00 |
| 3.13 | LDPE LINING SHEET | | | | |
| | Providing and applying of impermeable LDPE lining of thickness minimum 500 micron all complete and directed by Owner. | Sqm | 1100 | 90 | 99000.00 |
| 4.0 | STRUCTURAL STEEL WORK | | | | |
| 4.1 | Carrying, storing, fabricating and erecting in position and testing/examining bolted and/or welded STRUCTURAL STEEL WORKS as per drawings (including Embedded Plates, angles for supporting MCC panels, Anchor bolts etc.) at all levels and locations including all builtup sections/compound sections made out of rolled sections and/or plates/bent plates in trusses, purlins, wind ties, wind girders, columns, portals, racks, frameworks, bracings, beams, monorails, platforms, ladders, stoppers, brackets, sagrods, supports for equipment and technological accessories and process piping, hand railings, posts, galleries, trestles, etc., cutting to required size, straightening/ bending if required, edge preparation, cleaning, preheating, bolting/welding of joints, (including sealing the joints of box sections with continuous welding), finishing edges by grinding, fixing in line and level with staging & bracing by MS Pipes Cup-Lock system for adequate safety and removal of the same after erection including preparation and submission of detailed fabrication drawings, preparing the surface for painting by conventional copper slag blasting and applying shop primer of inorganic Zinc Silicate (minimum 75 micron DFT) after fabrication etc. all complete. IFFCO (OWNER) SHALL SUPPLY REQUIRED STRUCTURAL STEEL ON FREE ISSUE BASIS AND THE CONTRACTOR TO BEAR THE COST OF TRANSPORT FROM STORE TO RESPECTIVE WORKING SITE LOCATIONS ON REQUIREMENT BASIS. | MT | 40 | 36000 | 1440000.00 |
| 4.2 | Supplying and applying FINISH PAINT (with intermediate coat of epoxy based titanium di-oxide / Micaceous Iron oxide of DFT 75 micron minimum and finish coat of epoxy based colour pigmented poly-amide cured paint of 75 micron minimum and followed by finish coat minimum 25 micron DFT of Polyurethane colour pigmented) of approved quality and shade to structural steel erected structures including a coat of primer as directed over one coat of shop primer already applied including storage, surface preparation, degreasing, cleaning, drying, touching up of shop primer coat, providing temporary staging, scaffolding, testing etc., for steel structures at all levels and locations, all complete as per drawing. | MT | 40 | 15000 | 600000.00 |
| 4.3 | Providing, Supplying, Fabricating and erecting in position at all levels and locations bolted, screwed and/or welded GALVANISED GRATING of 25mm thickness in walkways, platforms, stairtreads, any other place as per drawings and as directed etc. including fixing, welding, preparation and submission of fabrication drawings etc. all complete as directed. | MT | 2 | 85000 | 170000.00 |
| 4.4 | Providing, Supplying, Fabricating and fixing in position at all locations 1000mm high HAND RAILING consisting of top rail, mid rail and vertical posts with 32mm nominal diameter GALVANISED TUBES with 100mm high 8mm thick galvanised plate toe guard including straightening if required, cutting, bending, welding, bolting, grouting with ordinary grout, cleaning, surface preparation, complete painting work as per drawing, preparation and submission of fabrication drawings etc. all complete as shown and directed by Owner. (Complete handrail work shall be measured as length of top rail only and not length of each element fixed). | KG | 250 | 530 | 132500.00 |
| | ANTI-TERMITE TREATMENT | | | | |
| 5.0 | Providing and injecting approved chemical emulsions as specified for pre-construction ANTI-TERMITE TREATMENT of approved make as per manufacturer's technical literature as per IS 6313 and creating a chemical barrier under and around column pits, wall trenches, basement excavations, top surfaces of plinth filling, junction of wall and floor, along the external perimeter of building, expansion joints, surrounding of pipes and conduits etc. all complete as directed by the Owner. (For payment, only Plinth area of the building at ground floor only shall be measured). | Sqm | 1050 | 228 | 239400.00 |
| 6.0 | DISMANTLING | | | | |
| 6.1 | Making the opening in masonry including dismantling in walls by cutting masonry and making good the damages to walls, flooring and jambs etc. complete, to match existing surface including disposal of mulba / rubbish within IFFCO premises all complete as directed by Owner | Sq.m. | 50 | 933 | 46650.00 |
| 6.2 | Dismantling / demolishing RCC / PCC work in floor / pavements by manually / by mechanical means including stacking / disposing of steel bars at scrap yard and disposal of unserviceable material within IFFCO premises as directed by OWNER | Cu.m. | 500 | 2535 | 1267500.00 |
| 7.0 | SEWAGE | | | | |
| 7.1 | Providing, laying and jointing glazed stoneware pipe of 200mm dia class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete | RM | 75 | 775 | 58125.00 |
| 7.2 | Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand : 10 graded stone aggregate 20mm nominal size) all around stone ware pipe including bed concrete complete all respect for 200mm dia SW pipe | RM | 75 | 975 | 73125.00 |

42412295.00

NOTES:

- 1.0 COST OF CEMENT AND REINFORCEMENT STEEL IS EXCLUDED FROM UNIT RATE
- 2.0 STRUCTURAL STEEL REQUIRED AGAINST ITEM NO 4.1 IS NOT INCLUDED IN UNIT RATE AS TO BE PROVIDED BY IFFCO ON FREE ISSUE BASIS
- 3.0 ITEM NO 4.3 & 4.4 IS INCLUSIVE OF ALL MATERIAL COST
- 4.0 ALL ABOVE RATES ARE INCLUSIVE OF GST
- 5.0 RATES HAVE BEEN CONSIDERED IN LINE WITH DSR (2018).