

# **Volume - III**

# **Bill of Quantities**

# **(BoQ)**

**Preamble of Bill of Quantities**

|   |  |
|---|--|
| 1 | The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions, Technical Specifications, and Drawings.   |
| 2 | The quantities given in the Bill of Quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the client may fix within the terms of the Contract. |
| 3 | The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional Plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.   |
| 4 | A rate (or) price (without GST) shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate, or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.  |
| 5 | The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.  |
| 6 | General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.  |
| 7 | The method of measurement of completed work for payment shall be in accordance with the Technical Specifications and Mode of Measurement will be as mentioned in the BoQ.  |

**Abstract**

| <b>Sl. No.</b> | <b>Description</b>                  | <b>Amount in INR</b> |
|----------------|-------------------------------------|----------------------|
| 1.             | Civil/Infra/Shed Works              |                      |
| 2.             | Water Supply Network (Potable)      |                      |
| 3.             | Water Supply Network (Non-Potable)  |                      |
|                |                                     |                      |
|                | <b>Sub-Total amount in Rupees</b>   |                      |
|                | <b>Add GST ....%</b>                |                      |
|                | <b>Total amount in Rupees</b>       |                      |
|                | <b>Total amount in words Rupees</b> |                      |

**Civil/ Infrastructure/ Shed works**

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
| 1      | Bored cast in situ piles Installation of Bored Cast in-situ Under Reamed piles of following dia using design mix of grade M 25 reinforced cement concrete by setting the bored cast in situ pile equipment's with all accessories and tools at each of locations based on the sequence of operations as directed by the Engineer-in-charge, boring for the piles from ground level in all soils to the required depth below cut off level to carry a safe working load not less than specified using direct mud circulation method (using bentonite clay of required density) inclusive of pile driving accessories, temporary casing pipe, bentonite solution of 10% of concrete with required specific density, mobilisation, transferring, installation of pile driving accessories from one location to another, over flow of concrete as minimum 1m from the pile termination level removal of mud from site up to a distance of 5km as directed by the Engineer in charge, the length of pile to be embedded in the pile cap, the cost including drilling, concrete, labour charges but excluding cost of steel and fabrication of reinforcement grills etc., complete complying with relevant standard specifications and as directed by the Engineer in charge. (The Basic rate for M25 grade concrete is Rs.5,340/- Per Cum. Pl. refer the schedule A in the standard contract Document) |      |          |      |        |
|        | a) 400mm dia  | Rmt  | 1,133.50 |      | -      |
| 2      | Mobilization charges inclusive of transportation to site assembling and dismantling the rotary pile equipment employed for the works etc., complete complying with relevant standard specifications and as directed by the Engineer in Charge.  | Set  | 2.00     |      | -      |
| 3      | Conducting Routine vertical compression load test for bored cast in situ RCC piles of 400MM dia by direct loading in accordance with IS 2911 ( part IV) 1985 excluding cost of pile and dismantling the same after testing, including finishing pile head and supplying and erection of all Kent ledge of suitable magnitude as specified, labour, excavation, back filling compaction etc., complete complying with relevant standard specifications and as directed by the Engineer in charge (150% of pile capacity )  |      | -        |      | -      |
|        | 400mm dia pile (pile Capacity- 28 TON, Test load (2.5 times of pile capacity), Kentledge load (25% of test load as per IS2911 Part IV)  | No   | 2.00     |      | -      |
|        | 400mm dia pile (pile Capacity- 28 TON, Test load (1.5 times of pile capacity), Kentledge load (25% of test load as per IS2911 Part IV)  | No   | 2.00     |      | -      |
| 4      | Conducting lateral load test for bored cast in situ RCC piles of following dia by direct loading in accordance with IS 2911 ( part IV) dismantling the same after testing, including finishing pile head and supplying and erection of all kentledge of suitable magnitude as specified, labour, excavation, back filling, kentledge  |      | -        |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
|        | arrangements like jack, pump, hose, calibrated pressure gauge, calibrated dial gauges, crane & labours compaction. Before conducting test valid calibration submitted to the Engineer in-charge etc., complete complying with relevant standard specifications and as directed by the Engineer-in-Charge.   |      |          |      |        |
|        | 400mm dia pile for First test   | No   | 2.00     |      | -      |
|        | 400mm dia pile for Routine test   | No   | 2.00     |      | -      |
| 5      | Conducting Pull out test for bored cast in situ RCC piles of following dia by direct loading in accordance with IS 2911 ( part IV) dismantling the same after testing, including finishing pile head and supplying and erection of all kentledge of suitable magnitude as specified, labour, excavation, back filling, kentledge arrangements like jack, pump, hose, calibrated pressure gauge, calibrated dial gauges, crane & labours compaction. Before conducting test valid calibration submitted to the Engineer in-charge etc., complete complying with relevant standard specifications and as directed by the Engineer-in-Charge.  |      | -        |      | -      |
|        | 400mm dia pile for First test   | No   | 2.00     |      | -      |
|        | 400mm dia pile for Routine test   | No   | 2.00     |      | -      |
| 6      | Chipping of RCC pile head of following dia pile to the required cut off level and clearing away the debris from site with an average lead of 5km, the cost including labour charges, hire charges for tools and plants, loading and unloading charges, transportation etc., complete complying with relevant standard specifications and as directed by the Engineer in-charge.   | Rmt  | 164.00   |      | -      |
| 7      | Providing Pre – Constructional Anti – Termite Treatment and creating a Chemical Barrier to the building by injecting chemical emulsion of required concentration under grade slab and grade beam, footings, column pits, trenches, pits, tunnels, wall trenches, back fill, plinth filling, junction of wall and floor. Retaining / side walls, external perimeter of building, surrounding of pipes, expansion joints, below U.G. sump and retaining / side walls etc. as per instructions of chemical manufacturer and all as directed. The treatment shall be carried out strictly in accordance with the technical specification and conforming to IS 6313 or equivalent BS specification. The chemical to be used as insecticide for the treatment shall be Biflex Tc, TC stands for Termiticide Concentrate for Termite Control (Bifenthrin) and the application shall be diluted 1 part of chemical Biflex Tc with 49 parts of water to get 0.05% emulsion and strictly in accordance with the manufacturer’s specification. | Sqm  | 1,277.30 |      | -      |
| 8      | Earth work excavation for foundation in all soils and sub-soils to the required depth as may be directed except in hard rock requiring blasting but inclusive of shoring, strutting, and bailing out water wherever necessary and refilling the sides of foundation with excavated earth in 150mm thick layers well watered rammed and consolidated and depositing the surplus earth in places shown clearing and levelling the site with an initial  |      | -        |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
|        | lead of 10 metres and lift as specified here under etc. complete in all respects complying with relevant standard specifications (including refilling)  |      |          |      |        |
|        | a) 0 to 2 m depth   | Cum  | 517.00   |      | -      |
| 9      | Earthwork excavation in all stiff clay, stiff black cotton, hard red earth, shales, murram, gravel, Stoney earth and earth mixed with small size boulders and to the required depth as may be directed except in hard rock requiring blasting inclusive of shoring strutting and baling out water wherever necessary, depositing the surplus earth in places shown clearing and levelling the site with an initial lead of 10 meter and lifts as specified hereunder etc., all complete in all respects complying with relevant standard specification (excluding refilling)  |      | -        |      | -      |
|        | a) 0 to 2 m depth   | Cum  | 716.00   |      | -      |
| 10     | Removing top soil to a depth of 200 mm from areas proposed to be occupied by buildings, roads, paved areas and external services since the top soil is rich in organic content and essential to establish new vegetation and shall be stockpiled to a height of 400 mm in designated areas and shall be reapplied to site during plantation of the proposed vegetation. Top soil shall be separated from subsoil debris and stones larger than 50 mm diameter and refilling the stored top soil in the site area as finished grade for planting areas. (As per NBC-part-10- 4.14). Transporting the material for stockpiled within the MIPCL scheme boundary. The rate to include removing small trees, shrubs, jungles, providing barricading arrangements, adequate safety measures etc.,. Rolling and compacting excavated ground surface by Vibratory roller 8 to 10 Tonne capacity to minimum 95% SPD, watering the surface to achieve optimum moisture content to required level with approval of the engineer in charge. | Cum  | 560.00   |      | -      |
| 11     | Improving Sub-grade using mooram, gravel to a thick of 250 mm as per MORT&H (Fifth Revision) Spec - 305:Providing and laying and spreading gravel in the sub-grade on a prepared surface, grading with motor grader and compacting with the vibratory roller 8 to 10 T capacity at optimum moisture content (OMC) to achieve the desired standard proctor density of 98% (IS:2720Part - 8) to form a layer of improved sub grade to achieve a minimum soaked CBR value of 8% including surveying wherever necessary and as directed by the Engineer in charge, in accordance with standard specifications, including watering, with all leads and compacting.(Total 500 mm thick and 2 layers of 250 mm thick)  | Cum  | 340.00   |      | -      |
| 12     | Removal of surplus earth available in the site, clearing the earth away 5 Km from the site including conveyance charges loading, unloading, hire charges for lorry, diesel, charges and labour charges etc all complete and as directed by the engineer in charge.  | Cum  | 763.30   |      | -      |
| 13     | Filling and levelling, interacting the conveyed earth within a lead of 2 KM, including necessary excavation, loading in trucks properly with a safer manner and transporting to the required site and unloading at required   | Cum  | 1,351.00 |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
|        | location, spreading in layers of 200 mm thick, breaking of clots, removal of foreign materials, / lumps / unwanted vegetation etc., watering, consolidation to the required compaction, including cost of earth, necessary field tests to be carried out as per the engineer in charge.   |      |          |      |        |
| 14     | Construction of Granular Sub - Base (GSB) to the required compacted thickness (Drainage layer) by providing approved Coarse graded material conforming to Grading-V of Table 400 - 1 and satisfying the physical requirement for material for GSB as per Table 400 - 2 of MORTH Rev -5 including screening, spreading in uniform layers with motor grader on prepared surface, watering and premixing by mix in place method with rotavator at OMC, and compacting with Vibratory roller 80 to 100 KN static weight to achieve the desired density and fine dressing to required grade and cross slope as directed by the Engineer in charge etc., complete including obtaining and transporting all materials from approved quarry site to work site with all lift and lead by mechanical transport, head load or any other mode of transportation including cost and conveyance of all materials, labour charges, hire charges and fuel charges for loader, water tanker with sprinkler, motor grader, vibratory road rollers and all other equipments, tools and plants, safety measures, testing required including all other incidental charges, etc., complete as per the standard specification as per clause 401 of MORTH Rev.-5 (the soaked CBR not less than 30%) | Cum  | 463.00   |      | -      |
| 15     | Providing, laying, spreading and compacting graded stone aggregates for Wet Mix Macadam 250mm thick, including premixing the materials with water at OMC in mechanical mix plant, conveyance of mixed materials by tipper to site, laying in uniform layers using pavers in Sub Base/ Base course on well-prepared surface and compacting with vibratory roller to achieve the desired density including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per clause 406 of MORTH Rev-5   | Cum  | 163.00   |      | -      |
| 16     | Manufacturing, supplying and fixing in position plain cement concrete precast kerb slab of following size Cement Concrete M20 Grade using 20mm HBG stone jelly including cost of moulding charges, casting of slab, finishing, curing, fixing and pointing the slab with CM 1:3 (One Cement and Three Sand) to full depth of slab etc., complete complying with standard specification and as directed by the Engineer in charge (The Basic rate for M20 grade concrete is Rs.5,225/- Per Cum. Pl. refer the schedule A in the standard contract Document)  |      | -        |      | -      |
|        | a) Kerb stone with Gutter   | Rmt  | 155.00   |      | -      |
|        | b) Kerb stone without Gutter 600mm x 300mm x 165mm  | Rmt  | 295.00   |      | -      |
| 17     | Providing and laying 83 mm thick factory made cement concrete interlocking paver block of M-40 grade by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern including 30 mm thick compacted bed of M sand, filling the joints with fine M sand the   | Sqm  | 530.00   |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
|        | cost including of all material, labour charges, necessary surface dressing, transportation and packing of all the edges etc. all complete and as directed by Engineer in charge   |      |          |      |        |
| 18     | Providing and laying 63 mm thick factory made cement concrete interlocking paver block of M-30 grade by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern including 30 mm thick compacted bed of M sand, filling the joints with fine M sand the cost including of all material, labour charges, necessary surface dressing, transportation and packing of all the edges etc. all complete and as directed by Engineer in charge   | Sqm  | 280.00   |      | -      |
| 19     | Laying and spreading to a maximum depth of 250 mm with available soil in the sub grade on a prepared surface, pulverising, mixing the spread soil in place with rotavator with 3 % slaked lime having minimum content of 70 % of CaO, grading with motor grader and compacting with the road roller at OMC to the desired density to form a layer of improved sub grade.  | Cum  | 114.70   |      | -      |
| 20     | Providing M10 grade (RMC) plain Cement Concrete of (PCC) with water cement ratio not exceeding 0.45 with minimum cement content and design mix as per IS codes, using ordinary Portland cement - 53 grade, M sand, 20 mm and down size coarse aggregates, necessary approved admixtures as per requirement and using GGBS confirming to IS 12089 and IS 455 with all leads and lifts including laying, compaction of concrete, shuttering, curing, finishing etc complete. Complying with relevant standard specification and as directed by the Engineer in charge in all trapezoidal and rectangular drains. (The Basic rate for M10 grade concrete is Rs.4,400/- per Cum. Pl. refer the schedule A in the standard contract Document).   | Cum  | 10.00    |      | -      |
| 21     | Providing M7.5 grade (RMC) plain Cement Concrete of (PCC) with water cement ratio not exceeding 0.45 with minimum cement content and design mix as per IS codes, using ordinary Portland cement - 53 grade, M sand, 20 mm and down size coarse aggregates, necessary approved admixtures as per requirement and using GGBS confirming to IS 12089 and IS 455 with all leads and lifts including laying, compaction of concrete, shuttering, curing, finishing etc complete. Complying with relevant standard specification and as directed by the Engineer in charge in all trapezoidal and rectangular drains. (The Basic rate for M7.5 grade concrete is Rs.4,200/- per Cum. Pl. refer the schedule A in the standard contract Document). | Cum  | 190.80   |      | -      |
| 22     | Cement concrete M20 design mix (RMC) for all reinforced cement concrete works namely Grade beam, column, Slab, Lintel, sill slab and other similar works and other similar structures etc. with water cement ratio not exceeding 0.45 and minimum cement content of 320 kg per cubic metre, using ordinary Portland cement - 53 grade, M sand, 20 mm and down size coarse aggregates, necessary approved admixtures as per requirement and using GGBS content 160 kg per cubic metre in structural and non-structural works excluding the cost of reinforcement grills, fabrication charges, shuttering and centering but including all leads etc, all  | Cum  | 10.50    |      | -      |

| Sl. No | Description  | Unit | Quantity | Rate | Amount |
|--------|--|------|----------|------|--------|
|        | complete. Mix design data has to be got approved engineer in charge before commencement of work. In foundation and Basement (The Basic rate for M20 grade concrete is Rs.5,225/- Per Cum. Pl. refer the schedule A in the standard contract Document)  |      |          |      |        |
| 23     | Supplying and filling in foundation and basement with Stone dust in layers of 150 mm thickness well-watered rammed and consolidated complying with relevant standard specifications including cost of stone dust and as directed by the Engineer in charge.  | Cum  | 75.20    |      | -      |
| 24     | Cement concrete M25 design mix (RMC) for all reinforced cement concrete works namely Grade beam, column, Slab, Lintel, sill slab and other similar works and other similar structures etc. with water cement ratio not exceeding 0.45 and minimum cement content of 340 kg per cubic metre, using ordinary Portland cement - 53 grade, M sand, 20 mm and down size coarse aggregates, necessary approved admixtures as per requirement and using GGBS content 160 kg per cubic metre in structural and non-structural works excluding the cost of reinforcement grills, fabrication charges, shuttering and centering but including all leads etc, all complete. Mix design data has to be got approved engineer in charge before commencement of work. In foundation and Basement (The Basic rate for M25 grade concrete is Rs.5,340/- Per Cum. Pl. refer the schedule A in the standard contract Document) |      | -        |      | -      |
|        | Foundation and basement  | Cum  | 343.90   |      | -      |
|        | Ground floor up to 3.30 Height   | Cum  | 70.40    |      | -      |
|        | First Floor -3.30 to 3.60 Height   | Cum  | 32.80    |      | -      |
| 25     | Supplying and erecting centering for sides and soffits including necessary supports and strutting upto 3.29 M height for plane surfaces as detailed below in all floors with all cross bracings using Mild Steel sheets of size 90 x 60 cm and 10 BG stiffened with welded Mild Steel angle of size 25mm x 25mm x 3 mm for boarding laid over silver oak joists of size 10cm x 6.50 cm spaced at above 90 cm centre to centre and supported by casuarina props of 10cm to 13 cm dia spaced at not more than 75 cm centre to centre in all floor etc., complete complying with the standard specification and as directed by the Engineer in charge. (Payment for centering shall be given after the concrete is laid)  |      | -        |      | -      |
|        | a) Form work for Plinth beam, Grade beam, Raft beam, retain wall   | sqm  | 913.14   |      | -      |
|        | b) For plane surfaces such as slab, Lintel, beam, vertical slab, side slabs of boxing, vertical drops, fascia, vertical wall, waffle slab etc.   | Sqm  | 563.50   |      | -      |
|        | c) For RCC surface of Square column and in small quantities such as sunshades, parapet cum drops, window boxing in projections and other similar works.  | Sqm  | 596.33   |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
| 26     | Flyash Brick work in Cement Mortar 1:5 (One of cement and five of M sand) using Flyash bricks of size 9"x4¼"x2¾" (23x11x7cm) for super structure in the following floors including labour for fixing the doors, windows and ventilator frames in position, fixing of hold fasts, scaffoldings, curing etc., complete in all respect complying with relevant standard specifications and drawings.   |      | -        |      | -      |
|        | a) For foundation and basement  | Cum  | 151.00   |      | -      |
| 27     | Flyash Brick work in Cement Mortar 1:6 (One of cement and six of M sand) using Flyash bricks of size 9"x4¼"x2¾" (23x11x7cm) for super structure in the following floors including labour for fixing the doors, windows and ventilator frames in position, fixing of hold fasts, scaffoldings, curing etc., complete in all respect complying with relevant standard specifications and drawings.  |      | -        |      | -      |
|        | a) In Ground floor  | Cum  | 108.00   |      | -      |
|        | 1st Floor   | Cum  | 86.00    |      | -      |
| 28     | Brick partition wall in Cement Mortar 1:4 (One of cement and four of M-sand) 110mm thick for super structure in the following floors using Flyash bricks of size 9"x4¼"x2¾" (23x11x7cm) including labour for fixing the doors, windows and ventilator frames in position, fixing of hold fasts, scaffoldings, curing etc., complete in all respect complying with relevant standard specifications and drawings   |      | -        |      | -      |
|        | In Ground floor   | Sqm  | 125.94   |      | -      |
| 29     | Plastering with cement mortar 1:5 (One of cement and five of M sand) 12 mm thick finished with neat cement including, providing band cornice, ceiling cornice, inner, outer walls, scaffolding curing etc., complete complying with standard specification and as directed by the Engineer in charge.   | Sqm  | 2,818.00 |      | -      |
| 30     | Supplying and fixing of 20mm thick bituminous expansion joint filler pad of approved quality and make inclusive of conveyance charges, cutting the pad to the required size, cost of materials and labour charges for fixing in position wherever necessary for all floors etc., complete and as directed by the Engineer in Charge   | Sqm  | 17.00    |      | -      |
| 31     | Painting two coats of newly plastered surface with ready mixed Weatherproof Exterior plastic emulsion paint of first class quality and of approved colour over a priming coat including thorough scrapping, clean removal of dirt, and including necessary plaster of paris putty, wherever required etc., complete complying with standard specification and as directed by the Engineer in charge.  | Sqm  | 2,899.00 |      | -      |
| 32     | Precast cement concrete Jally ventilator using standardised concrete mix M25 using 20mm gauge hard broken stone jelly for the following thickness excluding the cost and fabrication of reinforcement grills but including precasting, moulding, curing, finishing and fixing in position complying with relevant standard specifications etc., complete in the following floors. (The Basic rate for M25 grade concrete is Rs.5,340/- Per Cum. Pl. refer the schedule A in the standard contract Document) |      | -        |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
|        | I. 50mm thick   |      | -        |      | -      |
|        | (a) In Ground Floor   | Sqm  | 53.90    |      | -      |
|        | b) In First floor   | Sqm  | 14.00    |      | -      |
| 33     | Supplying and fixing of Country Wood wrought and put up for frames of doors, windows, ventilators, cupboard and any other similar joinery works with necessary plugs, rebates for shutters, plaster grooves on all faces etc., including labour charges for fixing hold fasts, complying with relevant standard specifications etc., in all respects.   |      | -        |      | -      |
|        | a) 0 to 4m length   | Cum  | 0.14     |      | -      |
| 34     | Supply and installation of fire doors Double leaf door of dimensions, of Thickness 46mm, Honeycomb In-fill, Door Hinges 4" x 3" x 3mm, Double Ball Make Assa Abloy Yale Ball bearing Butt Hinges Grade SS 304 - Finish SS Dead Lock with both side key Make Assa Abloy Yale or Equivalent Fire rating as 2 Hrs. The shutter thickness 1.20mm Galvanised and frame sheet thickness 1.5mm GI. Honey core as in fillable material and profile 2.52 and 3.15, respectively. Vision Panel 200 x 300mm 2 Hrs. Fire Door Schott Pyran with Frame the door mounting as brick or concrete. The cost includes transportation, installation, labours, and all necessary hardware such as (Door closer with standard arm srishan, Dead Lock (Geze) EPC 70MM, D Type Handle TGDID (Geze) 300X22, Clear glass (200mmx300mm) with foam tape and Installation kit). The frame of the doors, the orientation of the doors and the colour of the doors are as per the architectural drawings. |      | -        |      | -      |
|        | a) Fire door shutter size 1500x2400 (Double leaves)   | No   | 1.00     |      | -      |
| 35     | Supplying and fixing of single leaf Solid Core Flush shutters with commercial ply on both side with teakwood lipping around 35mm thick both sides finished with 1mm thick laminated sheet and edges are finished with pvc edge banding tape and fixing with Brass furniture fittings such as 5 no's 125x30mm hinges, 1 No of brass Tower bolt 400mm long and 12mm dia, 2 Nos 200mm ornamental brass Handle, Mortice Lock (Godrej or Equivalent) with required screws with 3 Keys With Night latch, 1No 40mm dia & 60mm long rubber bush, 1 no Door stopper with rubber bush, Hydraulic Door Closer (heavy duty) with required Brass screws, labour charges for wrought and put-up and fixing in position of flush shutters, the door with bottom with or without PVC louver arrangement, etc all completed as directed by the Engineer in charge  |      | -        |      | -      |
|        | b) Flush door shutter size 1000x2400 (Single leaf)  | Sqm  | 4.80     |      | -      |
| 36     | Supplying and fixing of single leaf Solid core flush door shutters using boiled water resistance (BWR) teak wood ply as per IS 303-1989, the cross band and face veneers are to be banded with phenol formaldehyde synthetic resin in hot press both sides and manufacturing the shutter by using quality timber of termite proof and seasoned to moisture content not more than 10%, hot pressed with hydraulic press at a temperature of 150o   |      | -        |      | -      |

| Sl. No | Description  | Unit | Quantity | Rate | Amount |
|--------|--|------|----------|------|--------|
|        | to the norms as per IS 2002-1983 and TW Ply on Both side with teak wood lipping around, 35mm thick including cost and fixing of Brass furniture fittings such as 5 no's 125x30mm hinges, 1 No of brass Tower bolt 400mm long and 12mm dia, 2 Nos 200mm ornamental brass Handle, Mortice Lock (Godrej or Equivalent) with required screws with 3 Keys With Night latch, 1No 40mm dia & 60mm long rubber bush, 1 no Door stopper with rubber bush, Hydraulic Door Closer (heavy duty) with required Brass screws, labour charges for wrought and put-up and fixing in position of flush shutters and as directed by the Engineer in charge.  |      |          |      |        |
|        | a) Flush door shutter size 1000x2100 (Single leaf)   | Sqm  | 4.00     |      | -      |
| 37     | Solid PVC Door Shutters using 19 Gauge 19mm MS square tubes for styles and outer frames. 15mm MS square tubes for top, lock and bottom rails. The steel tubes shall be covered with 5mm thick solid PVC Sheets. Shutter using 5mm thick solid PVC Sheets for panelling shall rigidly fixed in position including necessary furniture and fittings. The overall size of styles shall be 50mm x 30mm. The overall size of top rail, lock rail and bottom rail shall be 75mm x 30mm. The overall size of frames shall be 50mm x 45mm with suitable rabate for housing the shutter   |      | -        |      | -      |
|        | a) Solid panel PVC door with frame   | Sqm  | 3.20     |      | -      |
| 38     | Supplying, fabricating and placing in position of TMT bars for reinforcement with Fe 500 grade steel for all structures in the Pile, Pile cap, Grade beam, column, Slab, Lintel, sill slab and other similar works including cost of GI binding wire (18 gauge), cutting, bending, tying etc, all complete complying with relevant standard specification and as directed by the Engineer in charge in all RCC Works . (Fe 500 Reinforcement rate is Rs.55,665/- per MT Pl. refer the schedule A in the standard contract Document) (The steel rods must be Fe 500 grade of approved brand with ISI marking and necessary test certificate to be produced before using it at site) | MT   | 66.60    |      | -      |
| 39     | Providing 40mm thick granolithic floor finish of the following thickness with plain cement concrete 1:2:4 (One Cement, Two M. Sand and Four aggregate) using 10 to 12mm gauge hard broken stone jelly including laying, finishing and the top rubbed smooth with power trawl, thread lining, curing etc. complete complying with standard specification and as directed by the Engineer in charge.   | Sqm  | 1,002.00 |      | -      |
| 40     | Manufacturing, supplying and fixing Precast Reinforced Cement Concrete perforated / plain slabs of 100mm thickness and size as per drawing using M25 grade concrete, using following HBGS jelly including cost of reinforcement steel in position but including cost of moulding charges, casting of slab with necessary lifting hook, finishing, curing and fixing in position in all floors steel reinforcement as per structural drawing etc., complete complying with standard specification and as directed. (The Basic rate for M25 grade concrete is Rs.5,340/- Per Cum. Pl. refer the schedule A in the standard contract Document)  | Sqm  | 50.00    |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
| 41     | Supplying and fixing of Rolling shutters shall be pull and push type made of 18/Gx3" lath sections which consist of five main parts such as curtain, lock plate, guide channels rollers and hood cover. These five main parts are made out of special components detailed below: Curtain shall be of 18/Gx3" lath sections cut to required size and filled with heavy cast iron / MS clips. For 8' 0" (2.45m) high rolling shutter lath sections provided shall be not less than 37 numbers. Lock plate shall be of 10 GMS sheet reinforced with 40mm x 6mm MS angles at the bottom and fitted with heavy latches and locking arrangements on either side. There should be one handle on either sides. Guide channel pressed guide channels shall be 10GMS sheet and attached to the side brackets with 20mm square bar. Side brackets shall be of 10G MS plate and cast iron "U" clamps shall be rivetted to the side brackets. Roller shall be of heavy cast iron pullies fitted with heavy duty "C" class 40mm steel pipe and high tensile high carbon coil springs. 2 springs shall be supplied. Side brackets shall be of 10G MS plate and cast iron "U" clamps shall be rivetted to the side brackets. Roller shall be of heavy cast iron pullies fitted with heavy duty "C" class 40mm steel pipe and high tensile high carbon coil springs - 2 springs shall be supplied. Hood cover shall be of 0.8mm CRCA sheet reinforced with 25mm x 25mm x 3 mm MS angle or gate channel. The rolling shutter in addition to the above should have pulling hook and shall be coated on exposed area with heavy coat of red oxide primer. |      | -        |      | -      |
|        | Gear Operated Type (from 8 sqm. to 12 sqm. Area)  | Sqm  | 36.00    |      | -      |
| 42     | Supplying and laying the floor with best quality Nano polish Vitrified Tiles of size 600 x 600 x 8mm thick glossy finish or Mat finish of approved colour, shade and quality laid in cement mortar 1:3 (one cement and three M. Sand) 20mm thick in all floors and the top pointed with the white cement mixed same colour pigments, colour, shade, pattern and finishing of the tile is as per drawing the tile edges finished with necessary PVC trims, spacer. no excess payment made for wastage of materials, all the waste materials are disposed from the site etc., complete complying with standard specification. (The make and brand of the tiles should be got approved by Engineer in charge before use on works) (basic cost of tile is 65 Rs/Sqft)   | Sqm  | 40.47    |      | -      |
| 43     | Supplying and laying of Ceramic Tiles of minimum size of 305mm x 305mm x 6mm (Anti-skid) laid over 20 mm thick cement mortar 1:3 (One Cement and Three M.sand) base mortar over the existing slab / floor including cutting the tiles to the required size with special cutter wherever necessary, laying in position and pointing with white cement mixed with colouring pigment at the rate of 0.3 Kg. / sq. m. etc., complete complying with standard specification. (basic cost of tile is 40Rs/Sqft)   | Sqm  | 5.00     |      | -      |
| 44     | Providing and laying of Dadoing walls with designed glazed tiles of approved make of tiles using Cement Mortar 1:2 (One Cement and Two M.sand) 10mm thick and pointing the joints with white cement mixed with colouring pigments at the rate of 0.40 Kg. / sq. m. neatly in all floors, curing, the tile edges finished with   | Sqm  | 25.00    |      | -      |

| Sl. No | Description  | Unit | Quantity  | Rate | Amount |
|--------|--|------|-----------|------|--------|
|        | necessary PVC trims, spacer no excess payment made for wastage of materials, all the waste materials are disposed from the site etc., complying with standard specification and as directed by the Engineer in charge. (basic cost of tile is 40Rs/Sqft)   |      |           |      |        |
| 45     | Supplying and fixing of approved colour and quality for flooring, Kitchen top/top of wall/ steps not less than 18mm thick over cement plastering in CM 1:3 (One of Cement and three of sand) 20 mm tk including laying in position cutting the slab to the required size wherever necessary nosing, groove making, pointing the joints with coloured cement, curing, cutting the shapes where ever required, in all floors etc all the waste materials are disposed from the site the colour of the granite is Ruby red / Raw silk / Jet Black / Synthetic Grey / Paradise colour. all complete and as directed by the Engineer in charge. (The minimum cost of granite as Rs.170/Sqft)  | Sqm  | 4.40      |      | -      |
| 46     | Supply and fixing in position Hot rolled structural steel Primary E350 and secondary Members E250 (as per drawing) / Sections at all levels and to any shape & profile consisting of MS joists, channels, hollow sections, angles, GI purlins, GI runners, insert plates, flats and sag rods with necessary sleeves, bolts and nuts, gratings, pipes, edge protection for walls and columns, M.S. base plate, chequered plate of required thickness for duct closing and shafts closing at all floors at all levels with necessary supports such as M.S. angles / M.S. flats, stiffeners to be placed on angle iron frame work including cutting, straightening, welding as per standards for connections including consumables, anchor fastener etc. complete. Rate including all materials, labour charges, scaffolding, staging, transportation, lead & Lifts, wastage, etc. No separate payment made for bolts, anchor fastener, nuts, washers, welding etc., Rate shall including preparation of surface, all MS members shall be painted with anti-corrosive paint, with two coats of 1st class synthetic enamel paint of complete, as directed by the Engineer-in-charge. (The Basic rate for structural steel is Rs.53/- Per Kg. Pl. refer the schedule A in the standard contract Document) | Kg   | 56,600.00 |      | -      |
| 47     | Supplying and installation of PVC insulated Chain Link - 2" x 2" using 10 Gauge Galvanised Iron PVC insulated Wire with Barbed Wire - 10 Gauge - Two Ply and Four Pronged (Galvanised) for top, middle and bottom support to hold the chain link fencing including cost of material, labour charges, necessary hardware materials like bolt, nut & washers etc., complete as per standard specifications and as directed by the Engineer in charge.  | Sqm  | 700.00    |      | -      |
| 48     | Painting new iron works such as steel doors, window grill, ventilators, window bars, Kerb stone, balustrades etc., with two coats of best approved first quality and colour of synthetic enamel paint over the existing red oxide priming coat in all Floors excluding cost of priming coat etc, all complete complying with standard specifications and as directed by the Engineer in Charge. (The make, quality and colour of paint should be got approved by the Engineer in charge)   | Sqm  | 253.60    |      | -      |

| Sl. No | Description   | Unit | Quantity | Rate | Amount |
|--------|---|------|----------|------|--------|
| 49     | Supplying, Fabrication & Fixing of Eaves Gutter made out of 0.50 mm TCT Coated Galvalume sheets with necessary Strips, including cost of necessary fixing accessories, labour charges, scaffolding etc., all complete, as directed by the Engineer in charge. (make SAIL / JSW / Tata Bhushan)  | Rmt  | 192.80   |      | -      |
| 50     | Supply and fixing of sheets out of 0.50 mm TCT coated galvalume sheets, rate including all materials, labour charges, scaffolding, staging, transportation, lead & Lifts, wastage, etc. No separate payment made for bolts, nuts, self-driving screws, washers, welding, overlap of sheer as per drawing etc., all complete, as directed by the Engineer in charge. (make SAIL / JSW / Tata Bhushan)  | Sqm  | 1,764.46 |      | -      |
| 51     | Supplying and laying the following uPVC pipes class SN 8, SDR-34, confirming to IS 15328-2003 and relevant specials including packing the joints with rubber /lubricant fixing, holding wherever necessary and making good of the dismantled portion with necessary connections etc., complete in all respects and as per drawing No. (Below Ground level)  |      | -        |      | -      |
|        | 200 mm dia  | Rmt  | 50.00    |      | -      |
| 52     | Construction of inspection chamber of size 120cm x 90 cm x 90 cm with 100mm thick RCC loose slabs covering in M25 Grade Concrete mix including necessary reinforcement and earth work excavation for foundation with 15cm thick concrete bed using 40mm B.J. concrete in CC 1:3:6 for foundation brick work in CM 1:4 for chamber as directed during the execution including plastering with CM 1:3, 12mm thick, benching and channel etc. complete for 1 No. | No   | 4.00     |      | -      |
| 53     | Supplying and fixing of CI Grating with 0.1m to 0.2m length PVC 110mm dia 6Kg/cm <sup>2</sup> pipe for drain including cost of labour charges for cutting, fixing and cost of materials etc complete complying with standard specifications and as directed by the Engineer in charge.  | No   | 20.00    |      | -      |
| 54     | Providing weep holes in stormwater drain with necessary 110mm dia pipe (6kg/m <sup>2</sup> ) 0.20m length, wire mesh screen, necessary filling as per drawing etc complete complying with standard specifications and as directed by the Engineer in charge.  | No   | 70.00    |      | -      |
| 55     | Supplying and fixing of 110 mm dia PVC pipe for rain water down fall pipe conforming to IS13592 with ISI mark and fittings conforming to IS 14735, with necessary C I gratings, shoes, bends, offsets, clamps, teak wood plugs, etc., of approved quality including fixing C.I. gratings at the junction of parapet and floor or roof slab, finishing etc. all complete complying with standard specifications and as directed by Engineer in - charge..      | Rmt  | 197.00   |      | -      |
|        | <b>Sub-total Amount (A)<br/>(Civil, Infra &amp; Shed works)</b>   |      |          |      |        |

**Water Supply Network**

| Sl. No.  | Description  | Unit | Quantity | Rate in INR | Amount in INR |
|----------|--|------|----------|-------------|---------------|
|          | <b>Potable Water Supply</b>  |      |          |             |               |
| <b>1</b> | <b>HDPE pipe</b>   |      |          |             |               |
|          | Supplying and laying of HDPE pipes, confirming to IS 4984:2016 UV stabilized & anti-microbial fusion welded, having thermal stability including all fittings, trenching and refilling & testing of joints complete as directed by Engineer in charge   |      |          |             |               |
| a)       | 63 mm OD PN 6  | RM   | 190      |             |               |
| <b>2</b> | <b>Gate Valve</b>  |      |          |             |               |
|          | Supply and delivery of DI D/F Gate sluice valves (soft seated) resilient seated soft sealing Gate Valves(Sluice Valves) with body Bonnet of Ductile cast iron of Grade GGG 40 or equivalent grade, Wedge fully rubber lined with EPDM replaceable spindle nut without gland packing and with 3 O Ring protection on the shaft and seals of NBR and the valves should be of Vacuum tight and 100% leak proof with face to face dimensions as per BS 5163-89/ISI 4846-2000/DIN 3202 F4. All the valves should be with electrostatic powder coating both inside and outside with pocket less straight through body passage. All the valves are to be compatible for buried application with pressure rating PN 10/16 with 5 years warranty including all accessories complete as directed by Engineer in charge |      |          |             |               |
| a)       | 63 mm dia. Gate Valves   | Nos. | 7        |             |               |
| <b>3</b> | <b>NP-3 class R.C.C. pipes for road crossing</b>   |      |          |             |               |
|          | Supplying and laying non pressure NP-3 class R.C.C. pipes using Ordinary Portland cement confirming to IS 458-2003 including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc. complete in all respects as per directed by Engineer in charge. (using Ordinary Portland cement)   |      |          |             |               |
| a)       | <b>For potable water network</b>   |      |          |             |               |
|          | 200mm dia R.C.C. pipe  | RM   | 29       |             |               |

| Sl. No.  | Description  | Unit | Quantity | Rate in INR | Amount in INR |
|----------|--|------|----------|-------------|---------------|
| <b>4</b> | <b>Scour Valve</b>   |      |          |             |               |
|          | Supply and delivery of DI D/F Gate sluice valves (soft seated) resilient seated soft sealing Gate Valves(Sluice Valves) with body Bonnet of Ductile cast iron of Grade GGG 40 or equivalent grade, Wedge fully rubber lined with EPDM replaceable spindle nut without gland packing and with 3 O Ring protection on the shaft and seals of NBR and the valves should be of Vacuum tight and 100% leak proof with face to face dimensions as per BS 5163-89/ISI 4846-2000/DIN 3202 F4. All the valves should be with electrostatic powder coating both inside and outside with pocket less straight through body passage. All the valves are to be compatible for buried application with pressure rating PN 10/16 including all accessories complete as directed by Engineer in charge |      |          |             |               |
| a)       | 80 mm gate valve for scouring purpose - up to 160 mm dia HDPE pipe   | Nos  | 1        |             |               |
|          | <b>Valve chamber</b>   |      |          |             |               |
| <b>5</b> | Construction of rectangle valve chamber with R.C.C in M25 grade concrete, with necessary excavation, foundation levelling concrete in 1:3:6 (1 cement: 3 fine sand : 6 graded stone aggregate 40 mm nominal size), inside plastering with cement mortar 1:3 (1 cement: 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement including reinforcement steel and shuttering complete as per standard design as per the direction of Engineer in Charge.   |      |          |             |               |
| a)       | <b>For Gate valve</b>  |      |          |             |               |
|          | Gate valve chamber - For 110 mm dia pipe - (1.2m x 1.0m x 1.8m)  | Nos. | 7        |             |               |
| b)       | <b>For Scour Valve</b>   |      |          |             |               |
|          | Scour Valve Chamber  | Nos. | 1        |             |               |
|          | <b>Sub-total Amount (B)<br/>(Potable Water Supply)</b>   |      |          |             |               |

| Sl. No.  | Description   | Unit | Quantity | Rate in INR | Amount in INR |
|----------|---|------|----------|-------------|---------------|
|          | <b>Non-Potable Water Supply</b>   |      |          |             |               |
| <b>1</b> | <b>HDPE pipe</b>  |      |          |             |               |
|          | Supplying and laying of HDPE pipes, confirming to IS 4984:2016 UV stabilized & anti-microbial fusion welded, having thermal stability including all fittings, trenching and refilling & testing of joints complete as directed by Engineer incharge.  |      |          |             |               |
| a)       | 63 mm OD PN 6   | RM   | 82       |             |               |
|          |   |      |          |             |               |
| <b>2</b> | <b>Gate Valve</b>   |      |          |             |               |
|          | Supply and delivery of DI D/F Gate sluice valves (soft seated) resilient seated soft sealing Gate Valves(Sluice Valves) with body Bonnet of Ductile cast iron of Grade GGG 40 or equivalent grade, Wedge fully rubber lined with EPDM replaceable spindle nut without gland packing and with 3 O Ring protection on the shaft and seals of NBR and the valves should be of Vacuum tight and 100% leak proof with face to face dimensions as per BS 5163-89/ISI 4846-2000/DIN 3202 F4. All the valves should be with electrostatic powder coating both inside and outside with pocket less straight through body passage. All the valves are to be compatible for buried application with pressure rating PN 10/16 with 5 years warranty including all accessories complete as directed by Engineer incharge |      |          |             |               |
| a)       | 63 mm dia. Gate Valves  | Nos. | 3        |             |               |
|          |   |      |          |             |               |
| <b>3</b> | <b>NP-3 class R.C.C. pipes for road crossing</b>  |      |          |             |               |
|          | Supplying and laying non pressure NP-3 class R.C.C. pipes using Ordinary Portland cement confirming to IS 458-2003 including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc. complete in all respects as per directed by Engineer incharge. (using Ordinary Portland cement)   |      |          |             |               |
| a)       | <b>For potable water network</b>  |      |          |             |               |
|          | 200mm dia R.C.C. pipe   | RM   | 13       |             |               |
|          |   |      |          |             |               |

| Sl. No. | Description  | Unit | Quantity | Rate in INR | Amount in INR |
|---------|--|------|----------|-------------|---------------|
|         | <b>Valve chamber</b>   |      |          |             |               |
| 4       | Construction of rectangle valve chamber with R.C.C in M25 grade concrete, with necessary excavation, foundation levelling concrete in 1:3:6 (1 cement: 3 fine sand: 6 graded stone aggregate 40 mm nominal size), inside plastering with cement mortar 1:3 (1 cement: 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement including reinforcement steel and shuttering complete as per standard design as per the direction of Engineer in Charge.  |      |          |             |               |
|         |  |      |          |             |               |
| a)      | <b>For Gate valve</b>  |      |          |             |               |
|         | Gate valve chamber - For 110 mm dia pipe - (1.2m x 1.0m x 1.8m)  | Nos. | 3        |             |               |
|         |  |      |          |             |               |
|         | <b>Fire Fighting</b>   |      |          |             |               |
| 5       | <b>Fire Extinguisher</b>   |      |          |             |               |
|         | Supply and fixing of stored pressure ABC (Mono Ammonium Phosphate) Powder Type Fire Extinguisher of 6 kg. capacity as per IS:15683 with pressure gauge, discharge hose & control nozzle, wall mounting bracket, safety clip etc., including conveyance, all incidental charges, necessary scaffolding and re-doing the dismantled portions to its original condition wherever found necessary etc., complete as per standard specification and as directed by the Departmental Officers. Make: EXCELLENT / SAFETY FIRST / EQUIVALENT |      |          |             |               |
| a)      | Fire Extinguisher  | Nos  | 18       |             |               |
|         |  |      |          |             |               |
|         | <b>Fire Buckets</b>  |      |          |             |               |
|         | Supply and kept in position of 9 litres capacity Fire Buckets of 4 Nos. (Electrical room on each floor) with Bucket Stand as per standard specifications and as directed by the Departmental Officers  |      |          |             |               |
| b)      | Fire Buckets   | Nos  | 7        |             |               |
|         |  |      |          |             |               |
| c)      | Yard Hydrant   | Nos  | 1        |             |               |
|         |  |      |          |             |               |
|         | <b>Sub-total Amount (C)<br/>(Non-Potable Water Supply)</b>   |      |          |             |               |