



NAYA RAIPUR DEVELOPMENT AUTHORITY

**Tender Document for the
Construction Commercial Retail (Formal & Informal)
including Buildings and services on plot No. E04, E05, E09
& E10, of Phase 1, CBD Complex, Sector 21 at Naya Raipur**

(Following Three-Envelope Tender Procedure)

TENDER DOCUMENT (PART ONE)

NIT No.: 69 /CR- P1 /CBD/ AE C-II / CE (E) / NRDA / 2013-14, Raipur,

Dated: 25.02.2014

Issued by: Chief Executive Officer,
Naya Raipur Development Authority (NRDA)
Utility block, Capitol Complex, Sector- 19,
Naya Raipur- 492 002, Chhattisgarh
Tel No: + 91 771 2511500; Fax No.: +91 771 2511400.
Website: www.nayaraipur.com

Tender Document Contains

- (a) Only schedule "A" and Section-I of schedule "D" are to be filled & signed by the tenderer
- (b) All the certificates as per pre qualification criteria shall be appended with relevant forms of schedule "D"

1. PART ONE (NRDA F-1)-(Attached herewith, to be submit along the tender)

Part (A)

- a) Press Notice
- b) Detailed NIT

Part (B)

a) Schedule-A

- (i) Cost Abstract
- (ii) Bill of Quantities

- b) Schedule-B –NIL
- c) Schedule-C –NIL
- d) Schedule-D

Section-I..... Technical tender forms

- (i) Letter of Technical Tender
- (ii) Tenderer's Information Sheet
- (iii) Annual Turnover
- (iv) Specific Construction Experience
- (v) Declaration
- (vi) Check list for Technical tender evaluation

Section –IIScope of work

Section –III..... Technical specifications of work

Section –IV..... Special Conditions of Contract

Section –V..... List of approved makes

Section –VI..... Drawings

- e) Schedule-E
- f) Schedule-F

2. PART TWO (NRDA F-2/3)-Standard form (Not Attached herewith, and not to be submitted along the tender)

Important note: - Link site <http://nayaraipur.com/documents/gcc.pdf>

1. General Guidelines
2. Tender
3. General rules and directions
4. Conditions of contract
5. Clauses of contract
6. Model rules relating to labour, water supply and sanitation in labour camps safety code
7. Contract forms
 - (a) Draft Format for Performance Security
 - (b) Earnest Money Deposit Form (Bank Guarantee)
 - (c) Format of Contract Agreement
 - (d) Draft Format for Performance Guarantee for Water Proofing and Anti-termite Works
 - (e) Indemnity Bond
 - (f) Indenture Bond
 - (g) Notice for Appointment of Arbitrator
8. Proforma of schedules (Schedule 'A' to Schedule 'F')

Naya Raipur Development Authority (NRDA) Raipur, Chhattisgarh

Document details

Name of work : Construction Commercial Retail (Formal & Informal) including Buildings and services on plot No. E04, E05, E09 & E10, of Phase 1, CBD Complex, Sector 21 at Naya Raipur

Name of Tenderer:

Details

- a) Cost of Tender Document : Rs
- b) EMD : Rs

Signature of Tenderer

Date:_____

COST ABSTRACT**Construction Commercial Retail (Formal & Informal) including Buildings and services on plot No. E04, E05, E09 & E10, of Phase 1, CBD Complex , Sector 21 at Naya Raipur**

| Sl. No. | Description of Items | Amount in Figures (In INR) | Amount in Words (In INR) |
|----------------|-----------------------------|---------------------------------------|----------------------------------|
| A | Civil Work | Rs. - | |
| B | Plumbing Works | Rs. - | |
| C | Electrical Works | Rs. - | |
| | Total | Rs. - | |

BILL OF QUANTITY

Construction Commercial Retail (Formal & Informal) including Buildings and services on plot No. E04, E05, E09 & E10, of Phase 1, CBD Complex , Sector 21 at Naya Raipur

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|-------|-----------|-------------|------------------------|---------------|
| A | CIVIL WORKS | | | | | |
| A.1 | EARTHWORK | | | | | |
| 1 | Excavation in all types and sizes of foundations, trenches and drains or for any other purpose with all lead and lift including seperation of usefull soil for refilling and stacking & levelling of same, and disposal of surplus excavated stuff and spoils beyond NRDA boundries or as directed by Engineer In-charge including shoring, dewatering, surface dressing, etc., complete as per direction of Engineer In-charge. | | | | | |
| a | In all types of soil | cum | 180828.27 | | | 0.00 |
| b | In ordinary rock | cum | 17221.74 | | | 0.00 |
| c | In hard rock requiring blasting | cum | 8610.87 | | | 0.00 |
| 2 | Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete. | cum | 5740.58 | | | 0.00 |
| 3 | Supplying chlorpyriphos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified. | litre | 143514.50 | | | 0.00 |
| 4 | Diluting chemical emulsion (Chlorpyriphos/ lindane) in water as per manufacturers recommendation and injecting for post - constructional anti-termite treatment. | | | | | |
| 5 | Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete @ 5 litres / sqm. | sqm | 28702.90 | | | 0.00 |
| 6 | Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the intervals of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand). | meter | 2167.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|------|-----------|-------------|------------------------|---------------|
| 7 | Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M. | cum | 34443.48 | | | 0.00 |
| A.2 | FORM WORK | | | | | |
| 8 | Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for: | | | | | |
| a | Foundations, footings, base of columns and plinth beam in any shape and size. | sqm | 1488.61 | | | 0.00 |
| b | Wall of any thickness including attached pilasters, buttresses etc. | sqm | 44525.47 | | | 0.00 |
| c | Small lintel not exceeding 1.5m clear span. | sqm | 886.50 | | | 0.00 |
| d | Window sills, anchor blocks, string course, bends, copings, bed plates and like. | sqm | 591.00 | | | 0.00 |
| e | Edge of slab, breaks in floor and walls upto 400mm. | sqm | 11362.96 | | | 0.00 |
| f | Columns, Pillars, Piers and likes- rectangular or square in shape | sqm | 3388.40 | | | 0.00 |
| g | Columns, beams & walls- circular or any other geometrical shape other than square and rectangular in all sizes | sqm | 26356.51 | | | 0.00 |
| h | Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ) | sqm | 121426.86 | | | 0.00 |
| i | Beams, lintels, cantilevers & walls | sqm | 11813.11 | | | 0.00 |
| j | Vertical and horizontal fins individually or forming box, louvers bands, almirah shelves and likes. | sqm | 709.20 | | | 0.00 |
| k | Weather shade, chhajja, Cornices and mouldings | sqm | 1694.20 | | | 0.00 |
| l | Stair cases of all types excluding spiral and folded plate type, including risers and landings | sqm | 1457.80 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|------|-----------|-------------|------------------------|---------------|
| 9 | Extra for additional height every 1m or part thereof where height of staging for formwork exceeds 4.0 m, with adequate bracing, propping etc at all levels, for suspended floor, roof, landing, beam and balcony. (only plan area is to be measured) | sqm | 27186.00 | | | 0.00 |
| A.3 | CEMENT CONCRETE (PLAIN AND REINFROCED) | | | | | |
| 10 | Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work. | | | | | |
| | 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size). | cum | 4602.71 | | | 0.00 |
| 11 | Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of form work. | | | | | |
| b | 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size). | sqm | 1250.00 | | | 0.00 |
| 12 | Providing and laying design mix reinforcement cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto floor five level excluding cost of reinforcement and form work. | | | | | |
| a | M-25 (using minimum cement 410 kg/cum concrete) | sqm | 450.00 | | | 0.00 |
| b | M-30 (using minimum cement 420 kg/cum concrete) | sqm | 250.00 | | | 0.00 |
| c | M-40 (using minimum cement 435 kg/cum concrete) | sqm | 121273.20 | | | 0.00 |
| 13 | Extra for all PCC/ RCC work above floor five level for every four floor levels or part thereof for lifting of all materials required including materials required for erecting form work etc complete. | cum | 20704.70 | | | 0.00 |
| 14 | Extra for laying PCC/ RCC, in or under water or liquid mud including cost of pumping or bailing out of water and removing slush etc. complete per metre depth: | cum | 3388.40 | | | 0.00 |
| 15 | Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete: | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|-------------|-------------|------------------------|---------------|
| | Thermo-Mechanically treated bars | kg | 15159729.60 | | | 0.00 |
| 16 | Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including formwork. | cum | 900.00 | | | 0.00 |
| 17 | Providing and mixing water proofing material in PCC/ RCC work in the proportion recommended by the manufacturer. | kg | 31298.41 | | | 0.00 |
| 18 | Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth. | sqm | 3305.66 | | | 0.00 |
| 19 | Providing and laying upto 100 mm thick Cement Concrete of mix M-25 in basement parking, driveways and elsewhere , with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (Shuttering & other required works are included) , (Min. cement content shall be 330 Kg./Cum.) | cum | 8800.00 | | | 0.00 |
| 20 | Providing and laying cement concrete in kerbs, steps, edgings and the like works at or near ground level i/c all required shuttering/machinery etc . (Kerb with kerb laying machine.) | | | | | |
| | 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 | cum | 300.00 | | | 0.00 |
| 21 | Extra for reinforcement work above floor 5 level for each four floors or part thereof | | | | | |
| | Above 5th floor | kg | 257754.80 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|------|----------|-------------|------------------------|---------------|
| 22 | Cutting circular holes in RCC works including slabs, beams, walls, columns and all types of masonry works using core-cutting equipment including disposal of debris, repair of cut hole to required size and finish and sealing penetration with epoxy seal, waterproofing etc complete. Rates to consider holes upto 200mm diameter. | | | | | |
| a | In slabs (max thickness 400mm) | nos | 866.80 | | | 0.00 |
| b | In beams (max depth 1200mm) | nos | 118.20 | | | 0.00 |
| c | In walls (max thickness 400mm) | nos | 177.30 | | | 0.00 |
| 23 | Providing and fixing tapered/ parallel threaded couplers conforming to IS code on " Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification", to reinforcement bars including therading, enlargement at connection by forging, protecting the prepared reinforcement bars and related operations as required to complete the works as per directions of the Engineer-in-Charge. (The length of bars in which coupler is to be provided should not be less than 4 metre, no deduction for labour and binding wire saved for not providing lap length shall be made). | | | | | |
| a | Coupler for 16 mm dia reinforcement bar | nos | 40.00 | | | 0.00 |
| b | Coupler for 20 mm dia reinforcement bar | nos | 60.00 | | | 0.00 |
| c | Coupler for 25 mm dia reinforcement bar | nos | 80.00 | | | 0.00 |
| d | Coupler for 28 mm dia reinforcement bar | nos | 100.00 | | | 0.00 |
| e | Coupler for 32 mm dia reinforcement bar | nos | 125.00 | | | 0.00 |
| A.4 | WATER PROOFING | | | | | |
| 24 | Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures using rough Kota stone and consisting of: | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| | i) 1st layer of 22mm to 25mm thick approved rough Kota stone slab over a 25mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming to IS:2645 over the levelling course (levelling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound. | | | | | |
| | ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound.iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer. | sqm | 30684.72 | | | 0.00 |
| 25 | Providing and laying integral cement based treatment for water proofing on the vertical surface at all levels by fixing 22 mm to 25mm thick rough Kota stone slab with cement slurry mixed with water proofing compound conforming to IS:2645 with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with 20mm thick cement mortar 1:3 (1 cement : 3 coarse sand) with neat cement punning mixed with water proofing compound complete. | sqm | 9924.07 | | | 0.00 |
| 26 | Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of WC, kitchen and the like consisting of: | | | | | |
| | i) 1st course of applying cement slurry @ 4.4 Kg/sqm mixed with water proofing compound conforming to IS 2645 including rounding off junction of vertical and horizontal surface. | | | | | |
| | ii) 2nd course of 20mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound including rounding off junction of vertical and horizontal surface. | | | | | |
| | iii) 3rd course of applying blown or residual bitumen applied hot @ 1.7 Kg. per sqm of area. | | | | | |
| | iv) 4th course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg. per sqm of area. | sqm | 1477.50 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|-------|----------|-------------|------------------------|---------------|
| 27 | Providing and placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete : | | | | | |
| a | Serrated with central bulb (225mm wide, 8-11mm thick). | meter | 1773.00 | | | 0.00 |
| b | Dumb bell with central bulb (180mm wide, 8mm thick). | meter | 236.40 | | | 0.00 |
| c | Kickers (320mm wide, 5mm thick). | meter | 98.50 | | | 0.00 |
| 28 | Providing and laying integral cement based water proofing treatment on roofs, balconies, terraces etc with average thickness of 120mm and minimum thickness at khurra as 65 mm, consisting of following operations including surface preparation: | | | | | |
| | i) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement mixed with water proofing compound conforming to IS. 2645 over the RCC slab including adjoining walls upto 300mm height. | | | | | |
| | ii) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) mixed with water proofing compound conforming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) mixed with water proofing compound conforming to IS : 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. | | | | | |
| | iii) After two days of proper curing applying a second coat of cement slurry using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645. | | | | | |
| | iv) Finishing the surface with 20 mm thick joint less cement mortar of mix 1:4 (1 cement :4 coarse sand) mixed with water proofing compound conforming to IS : 2645 including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. | | | | | |
| | v) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order: | sqm | 15169.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|------|----------|-------------|------------------------|---------------|
| 29 | Providing and laying 3mm thick APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 ltr/sqm. by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/ltr and viscosity 70 - 160 cps. over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. | | | | | |
| | The vital physical and chemical parameters of the membrane shall be : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane : | sqm | 8900.46 | | | 0.00 |
| A.5 | BRICK WORK | | | | | |
| 30 | Brick work with modular fly-ash lime bricks (FALG Bricks) confirming to IS:12894-2002 of class designation 40 in foundation and plinth in: | | | | | |
| 31 | Cement Mortar 1:4 (1 cement : 4 coarse sand) | cum | 1770.84 | | | 0.00 |
| 32 | Cement Mortar 1:6 (1 cement : 6 coarse sand) | cum | 2206.40 | | | 0.00 |
| 33 | Precast cement concrete block masonry with precast blocks having crushing strength 75 kg/sqcm in foundation and plinth in cement mortar 1:5(1 Cement :5 coarse sand) | cum | 1182.00 | | | 0.00 |
| 34 | Half brick thick brick masonry with modular well-burnt clay bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in superstructure above plinth level upto floor five level. | | | | | |
| | Cement Mortar 1:3 (1 cement : 3 coarse sand) | sqm | 5906.06 | | | 0.00 |
| 35 | Extra for half brick thick brick work in superstructure above floor five level for every four floor levels or part thereof. | sqm | 1379.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|-------|----------|-------------|------------------------|---------------|
| 36 | Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry. | sqm | 1773.00 | | | 0.00 |
| 37 | 150 mm thick Brick work with AAC block (e.g. Siporex) with cement Mortar in superstructure | cum | 17708.39 | | | 0.00 |
| A.6 | STEEL AND ALUMINIUM WORK | | | | | |
| 38 | Structural steel work riveted or bolted or welded in built-up sections, trusses and frames work upto a height of 5m above plinth level, including cutting, hoisting, fixing in position and applying a priming coat of red oxide zinc chromate primer. | kg | 70920.00 | | | 0.00 |
| 39 | Steel work in tubular structure in built-up sections, trusses and frame work including cutting, hoisting, fixing in position upto a height of 5m above plinth level, consisting of columns trusses, roof and bottom purlins, base plate, holding down bolts, wind ties bracing (if required), bolts, nuts and washers for fastening etc. complete with applying a priming coat of red oxide zinc chromate primer. | | | | | |
| | Hot finished seamless welded tubes | kg | 66192.00 | | | 0.00 |
| 40 | Providing and fixing M.S. fan clamp/ hook for ceiling fan made out of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop. | each | 2167.00 | | | 0.00 |
| 41 | Providing and fixing in position doors, windows and ventilators frames made of cold rolled pressed steel sheet framed profiles made from commercial M.S. Sheets conforming to I.S. 513 of 1973 and as per general specifications of I.S 4351 including hinges jamb, lock jamb, steel butt hinges, base tie, joints mitred and welded with 10cm long legs of size 15x3mm M.S. flat, embedded in cement concrete blocks 15x10x10cm size of grade M-10 or rawl plugs and screws or with fixing clips or with bolts and nuts including neatly compacted filling M-10 cement concrete in profile section applying a priming coat of red oxide zinc chromate primer. | | | | | |
| | Single rebate 100mmx50mm size, 1.25mm thick sheet. | meter | 1773.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 42 | Providing stainless steel railing/ grill made of S.S. flats, hollow S.S. pipe or square/ rectangular sections of approved design fixing in stair case, balcony or other places with metal fasteners and stainless steel bolts etc complete. | kg | 21953.68 | | | 0.00 |
| 43 | Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) | each | 200.00 | | | 0.00 |
| 44 | Balcony Glass Railing with 15mm thick clear laminated toughned glass fitted with 60 x 10 mm S.S. flat bar as a vertical member placed at 1200m c/c along with bottom plate for fixing with 230 mm thick & 100mm high RC uptue. On the top end of flat bar 50 mm dia S.S. pipe as a horizontal member. Including with all necessary fixing etc. complete(all s.s material should be in matt finish). For more detail please refer attached drawing. | sqm | 3666.56 | | | 0.00 |
| 45 | Providing and fixing aluminium work for doors, windows, ventilators and partitions made out of extruded aluminium standard sections (main section with minimum 1.5mm thickness) conforming to IS: 733, IS: 1285 mitred and jointed mechanically including aluminium cleats, neoprene weather stripping gasket beveled edge beading, screws duly fixed in wall/ floor with fixing clips or hold fasteners or bolts and nuts as required aluminium sections shall be anodized transparent or dyed to approved shade according to IS: 1868, minimum anodic coating shall be of grade AC-15. (Glazing and panelling to be paid for separately | | | | | |
| | For fixed portion | kg | 15431.88 | | | 0.00 |
| 46 | For shutter of doors, windows & ventilators including providing and making provision for fixing of fitting wherever required including the cost of PVC/ neoprene gasket required (Fittings shall be paid for separately). | kg | 13717.23 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|--|------|----------|-------------|------------------------|---------------|
| 47 | Extra for polyester powder coated (minimum 50 micron) aluminium sections instead of anodized. | kg | 29149.11 | | | 0.00 |
| 48 | Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side having 12 mm air gap including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. complete. | sqm | 394.00 | | | 0.00 |
| 49 | ALLUMINIUM COMPOSITE PANEL | | | | | |
| | Providing and fixing of aluminium panel for external wall cladding with necessary frame work using L-angle of 38mmx38mmx3.8mm thick and complete panel should consist of 3mm of POLYEHELENE core of LPDE sandwiched between sink of 0.5mm thick aluminium sheet making a total of 4mm. the surface will be finished with PVDE base coating. The system shall be fixed using GI brackets and good quality bolts and nut complete with spring washer and cap nuts and all other necessary accessories sealing shall be done using weather sealant of Dow corning 789 make or approved equivalent make as specified in the specification. | | | | | |
| | Natural Colour Anodised Alluminium (Anodised transparent or dyed to required according to IS: 1868, minimum colour anodic coating of grade AC 25) | sqm | 4102.18 | | | 0.00 |
| 50 | Extra for openable window | | | | | |
| | Openable window in structural glazing whenever required will be of stainless steel hinges of EBCO make, handle will be Alu-Alpha make and complete in all respect using good qualit hardwares | sqm | 584.95 | | | 0.00 |
| A.7 | ROOFING AND CEILING | | | | | |
| 51 | Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1mx1mx400micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edge sand making and finishing the outlet complete. | each | 157.60 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------------------------------|--|-------|----------|-------------|------------------------|---------------|
| 52 | Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10mm and down grade) including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design. | meter | 2088.20 | | | 0.00 |
| A.8 PLASTERING AND POINTING | | | | | | |
| 53 | 12mm thick cement plaster of mix: In cement Mortar 1:3 (1 cement : 3 fine sand) | sqm | 39633.41 | | | 0.00 |
| 54 | 6mm thick cement plaster of mix: In Cement mortar 1:3 (1 cement : 3 fine sand) | sqm | 95340.12 | | | 0.00 |
| 55 | 18 mm thick cement plaster with under layer of 12mm thick cement plaster 1:5 (1 cement : 5 fine sand) finished with a top layer of 6mm thick cement plaster 1:3 (1 cement : 3 fine sand). | sqm | 33114.91 | | | 0.00 |
| 56 | Providing and fixing chicken mesh weighting not less than 250 gms/ sqm as per IS : specification in the required width with 10mm long steel nails on vertical and horizontal surface near R.C.C. and brick walls junctions including scaffolding and all lead and lifts etc. complete before plastering upto 10mts in height. | sqm | 11426.00 | | | 0.00 |
| 57 | Extra for plastering of exterior walls when height exceeds 10m above ground level for every additional height of 3.0m or part thereof. | sqm | 18518.00 | | | 0.00 |
| 58 | Extra for plastering on circular work not exceeding 6.0 meters in radius. | sqm | 26358.60 | | | 0.00 |
| A.9 FLOORING | | | | | | |
| 59 | 52 mm thick cement concrete flooring with under layer of 40mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer of 12 mm thick cement metallic hardener concrete mix 1:2 (1 cement hardener mix : 2 stone aggregate of 6 mm size by volume) with metallic hardening compound of approved quality mixed with cement in ratio of 4:1 (4 cement : 1 metallic floor hardening compound by weight) including finishing etc. complete. | sqm | 11314.10 | | | 0.00 |
| 60 | Extra for making chequers of approved pattern on cement concrete flooring, landing, pavement etc. | sqm | 11314.10 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|-------------|--|------|----------|-------------|------------------------|---------------|
| 61 | Providing and laying vitrified floor tiles with double charge/ multi charge printing with water absorption less than 0.5% and conforming to IS : 15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete: | | | | | |
| a | Size 600x600mm | sqm | 2143.75 | | | 0.00 |
| b | Size 800x800mm | sqm | 4800.00 | | | 0.00 |
| 62 | Providing and laying vitrified tile work in skirting in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete. | sqm | 475.00 | | | 0.00 |
| 63 | Providing and laying Ceramic antiskid floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red, Brown laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement | sqm | 8200.00 | | | 0.00 |
| A.10 | STONE WORK | | | | | |
| 64 | Granite of any colour and shade | | | | | |
| a | Area of slab upto 0.50 sqm | sqm | 17.46 | | | 0.00 |
| b | Area of slab over 0.50 sqm. | sqm | 31862.56 | | | 0.00 |
| 65 | Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edges etc. complete. | each | 220.64 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|-------------|--|-------|-----------|-------------|------------------------|---------------|
| 66 | Extra for providing edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. | | | | | |
| | Granite work. | meter | 3529.29 | | | 0.00 |
| 67 | Providing and fixing 18 mm thick stone slab table rubbed, edges rounded and polished of size 75x50 cm deep and 1.8 cm thick fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth. | | | | | |
| | Granite Stone of approved shade. | sqm | 20.69 | | | 0.00 |
| 68 | Providing and fixing cramps of required size & shape in RCC/ CC backing with cement mortar 1:2 (1 cement :2 coarse sand) including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately). | | | | | |
| | Stainless steel cramps. | kg | 1773.00 | | | 0.00 |
| 69 | Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 match the shade of the slabs, including rubbing and polishing complete. | sqm | 1221.40 | | | 0.00 |
| 69a | Extra for nosing in steps and treads of kota stone slab. | metre | 2016.00 | | | 0.00 |
| A.11 | PAINTING | | | | | |
| 70 | White washing with lime to give an even shade. | | | | | |
| | On new work (Three or more coats) | sqm | 95340.12 | | | 0.00 |
| 71 | Distemping with acrylic washable distemper to give an even shade. | | | | | |
| | On new work (Two or more coats) | sqm | 39633.41 | | | 0.00 |
| 72 | Wall painting with acrylic luxury emulsion (plastic) paint (top most approved branded quality) to give an even shade. | | | | | |
| | On new work (two or more coats) | sqm | 121663.26 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------------|---|------|----------|-------------|------------------------|---------------|
| 73 | Painting new exterior surface (two or more coats) with PREMIUM TEXTURED paint as per manufacturer's specifications to give protective and decorative finish including cleaning washing of surface etc. complete with: | | | | | |
| 74 | On new work (Two or more coats) | sqm | 33114.91 | | | 0.00 |
| Sub total | | | | | | 0.00 |

BILL OF QUANTITY

Construction Commercial Retail (Formal & Informal) including Buildings and services on plot No. E04, E05, E09 & E10, of Phase 1, CBD Complex , Sector 21 at Naya Raipur

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|--------------|--|------|----------|-------------|------------------------|---------------|
| C | ELECTRICAL WORKS | | | | | |
| 1 | POINT WIRING | | | | | |
| 1.1 | Normal | | | | | |
| 1.1.1 | Wiring for light/ fan/ exhaust fan / call bell point with 1.5 sqmm FR PVC insulated stranded copper conductor single core cable in concealed PVC conduit, with 5 amp modular switch, modular base and cover plate, suitable size G.I. box and earthing the point with same size cable as required | | | | | |
| a | Short Point | No. | 10 | | | 0.00 |
| b | Medium Point | No. | 699 | | | 0.00 |
| c | Long Point | No. | 100 | | | 0.00 |
| 1.1.2 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group C-Basement Carpark Area | No. | 95 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 1.1.3 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group C-Passage Area | No. | 373 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| 1.1.4 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.- For Group Control Basement carpark and Passages Area | No. | 1207 | | | 0.00 |
| 1.1.5 | Extra for providing and fixing light plug point on board in concealed PVC conduit point wiring with modular type 3 pin 5 amp socket outlet and 5 amp switch including cost of base and cover plate and G. I. box etc. as required | No. | 10.00 | | | 0.00 |
| 1.1.6 | Wiring for light plug point with 2x2.5 sq mm FR PVC insulated stranded copper conductor cable in concealed PVC conduit along with modular type 6 Amp switch and 3 pin 6 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size cable etc. as required. | | | | | |
| a | Medium Point | No. | 10.00 | | | 0.00 |
| b | Long Point | No. | 10.00 | | | 0.00 |
| c | Extra Long Point I | No. | 10.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|--------------|--|------|----------|-------------|------------------------|---------------|
| 1.1.7 | Wiring for power plug point with 2x4 sq mm FR PVC insulated stranded copper conductor cable in concealed PVC conduit along with modular type 16 Amp switch and 6 pin 16 amps socket outlet with modular base and cover plate, suitable size G.I. box, earthing the switch box and socket outlet with same size cable etc. as required. | | | | | |
| a | Medium Point | No. | 50.00 | | | 0.00 |
| b | Long Point | No. | 50.00 | | | 0.00 |
| c | Extra Long Point I | No. | 50.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|--------------|--|------|----------|-------------|------------------------|---------------|
| | | | | | | |
| 1.1.8 | Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. | | | | | |
| a | 75mmX75mm (1 Module) | No. | 15.00 | | | 0.00 |
| b | 75mmX75mm (2 Module) | No. | 15.00 | | | 0.00 |
| 1.2 | Emergency Lighting | | | | | |
| 1.2.1 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group C For Basement Area | No. | 107 | | | 0.00 |
| 1.2.2 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group C For Passage Area | No. | 81 | | | 0.00 |
| | | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 1.2.3 | Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. - For Group Control For Basement and Passages Area | No. | 690 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 1.3 | Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface steel conduit including painting etc as required | | | | | |
| 1.3.1 | 3 X 1.5 sq. mm in 20mm conduit | Mtr | 10.00 | | | 0.00 |
| 1.4 | Wiring for circuit/ submain wiring along with earth wire with the following sizes of PVC insulated copper conductor, single core cable in surface /recessed pvc conduit as required | | | | | |
| 1.4.1 | 3 X 1.5 sq. mm in 20mm conduit | Mtr | 5843.88 | | | 0.00 |
| 1.4.2 | 3 X 2.5 sq. mm in 20mm conduit | Mtr | 2874 | | | 0.00 |
| 1.5 | CONDUITS | | | | | |
| | Supplying and fixing of following sizes PVC conduit along with accessories in concealed complete as required. | | | | | |
| 1.5.1 | 20 mm | Mtr | 10.00 | | | 0.00 |
| 2 | LIGHT FIXTURES | | | | | |
| 2.1 | NORMAL LIGHTING FIXTURES | | | | | |
| | Supply, installation, testing & commissioning of light fixtures complete with required mounting bracket, connecting wire including control gear, Lamps, wiring etc. as per specification. Note : All Lamps are daylight type. | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 2.1.1 | 2X2 Grid type LED Recessed Down lighter (CAT. NO : RC365,CIRRUS;MAKE:- PHILIPS OR EQUIVALENT) Minimum Gurantee of fixture to be 2 years | No. | 10 | | | 0.00 |
| 2.1.2 | 1 X 70 W HID, Surface decorative horizontal mounting downlighter (MBS205 1xMHN TD 70W :- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years ,Minimum Gurantee of Lamp to be 1 years) | No. | 10 | | | 0.00 |
| 2.1.3 | 2 X 18 W CFL, Recess mounting downlighter (CAT. NO FBH145 M 2xPL-C/4P18W HF 240V LH MAKE:- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years. Minimum Gurantee of Lamp to be 1 years) | No. | 10 | | | 0.00 |
| 2.1.4 | 1X28W FTL, V2 Vector TL5 Fitting (CAT NO. V2 VECTOR 28W TCH207 MAKE:- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years,Minimum Gurantee of Lamp to be 1 years) | No. | 903 | | | 0.00 |
| 2.1.5 | 2X28W FTL, TL5 Fitting (PHILIPS TCW450 2xTL5-28W EBT OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years, Minimum Gurantee of Lamp to be 1 years) | No. | 10 | | | 0.00 |
| 2.1.6 | 1 X 9 W CFL Bulkhead Fitting, (CAT NO. FXC 101 1X PL-5/ 2P 9W MAKE- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years,Minimum Gurantee of Lamp to be 1 years) | No. | 10 | | | 0.00 |
| | | | | | | |
| | | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|--------------|---|------|----------|-------------|------------------------|---------------|
| 2.2 | EMERGENCY LIGHT FIXTURES | | | | | |
| | Supply, installation, testing & commissioning of light fixtures complete with required mounting bracket, connecting wire including control gear, Lamps, wiring etc. as per specification. Note : All Lamps are daylight type. | | | | | |
| 2.2.1 | 2X2 Grid type LED Recessed Down lighter (CAT. NO : RC365,CIRRUS;MAKE:- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire an Lamp shall be 2 years) | No. | 10 | | | 0.00 |
| 2.2.2 | 1 X 70 W HID, Surface decorative horizontal mounting downlighter (MBS205 1xMHN TD 70W :- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years ,Minimum Gurantee of Lamp to be 1 years) | No. | 10 | | | 0.00 |
| 2.2.3 | 2 X 18 W CFL, Recess mounting downlighter (CAT. NO FBH145 M 2xPL-C/4P18W HF 240V LH MAKE:- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years Minimum Gurantee of Lamp to be 1 years) (Minimum Gurantee of Luminaire to be 2 years Minimum Gurantee of Lamp to be 1 years) | No. | 10 | | | 0.00 |
| 2.2.4 | 1X28W FTL, V2 Vector TL5 Fitting (CAT NO. V2 VECTOR 28W TCH207 MAKE:- PHILIPS OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years Minimum Gurantee of Lamp to be 1 years) | No. | 280 | | | 0.00 |
| | | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 2.2.5 | 2X28W FTL, TL5 Fitting (PHILIPS TCW450 2xTL5-28W EBT OR EQUIVALENT) (Minimum Gurantee of Luminaire to be 2 years Minimum Gurantee of Lamp to be 1 years) | No. | 161 | | | 0.00 |
| 2.2.6 | Exit Glow signs with Emergency battery back-up units (Klite make - Cat no. 7879/7882) | No. | R.0 | | | - |
| 2.2.7 | Exit Glow signages Prolite make - CAT NO.: ARS 10000 300x600mm sheet (Minimum Gurantee of Luminaire to be 2 years Minimum Gurantee of Lamp to be 1 years) | No. | 532.00 | | | 0.00 |
| | | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|------------|---|------|----------|-------------|------------------------|---------------|
| 3 | EMERGENCY CONVERSION KITS | | | | | |
| | Supply installation,interconnecting with emergency luminaire , testing & commissioning of Emergency 30 Min battery back-up units Similar to PROLITE MAKE PECM-EB CONVERSION MODULE. | No. | | | | |
| 3.1 | Emergency Converison Kit for 2X2 Grid type LED Recessed Down lightner (CAT. NO : RC365,CIRRUS;MAKE:- PHILIPS OR EQUIVALENT) | No. | 10 | | | 0.00 |
| 3.2 | Emergency Converison Kit for 1 X 70 W HID, Surface decorative horizontal mounting downlightner (MBS205 1xMHN TD 70W :- PHILIPS OR EQUIVALENT) | No. | 10 | | | 0.00 |
| 3.3 | Emergency Converison Kit for 2 X 18 W CFL, Recess mounting downlightner (CAT. NO FBH145 M 2xPL-C/4P18W HF 240V LH MAKE:-PHILIPS OR EQUIVALENT) | No. | 10 | | | 0.00 |
| 3.4 | Emergency Converison Kit for 1X28W FTL, V2 Vector TL5 Fitting (CAT NO. V2 VECTOR 28W TCH207 MAKE:- PHILIPS OR EQUIVALENT) | No. | 280 | | | 0.00 |
| 3.5 | Emergency Converison Kit for 2X28W FTL, TL5 Fitting (PHILIPS TCW450 2xTL5-28W EBT OR EQUIVALENT) | No. | 161 | | | 0.00 |
| | Sub total | | | | | 0.00 |

BILL OF QUANTITY

Construction Commercial Retail (Formal & Informal) including Buildings and services on plot No. E04, E05, E09 & E10, of Phase 1, CBD Complex , Sector 21 at Naya Raipur

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|--------------|--|------|----------|-------------|------------------------|---------------|
| B | PLUMBING | | | | | |
| 1 | Water Supply System | | | | | |
| 1.1 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. | | | | | |
| | <i>Concealed work, including cutting chases and making good the walls etc.</i> | | | | | |
| 1.1.1 | 15 mm nominal outer dia Pipes | Mtr | 695.00 | | | 0.00 |
| 1.1.2 | 20 mm nominal outer dia Pipes | Mtr | 360.00 | | | 0.00 |
| 1.1.3 | 25 mm nominal outer dia Pipes | Mtr | 200.00 | | | 0.00 |
| 1.1.4 | 32 mm nominal outer dia Pipes | Mtr | 70.00 | | | 0.00 |
| 1.2 | Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. | | | | | |
| 1.2.1 | 15 mm nominal outer dia Pipes | Mtr | 578.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| 1.2.2 | 20 mm nominal outer dia Pipes | Mtr | 1641.00 | | | 0.00 |
| 1.2.3 | 25 mm nominal outer dia Pipes | Mtr | 896.00 | | | 0.00 |
| 1.2.4 | 32 mm nominal outer dia Pipes | Mtr | 524.00 | | | 0.00 |
| 1.2.5 | 40 mm nominal outer dia Pipes | Mtr | 1565.00 | | | 0.00 |
| 1.2.6 | 50 mm nominal outer dia Pipes | Mtr | 759.50 | | | 0.00 |
| 1.2.7 | 62.5 mm nominal inner dia Pipes | Mtr | 1171.00 | | | 0.00 |
| 1.2.8 | 75 mm nominal inner dia Pipes | Mtr | 658.00 | | | 0.00 |
| 1.2.9 | 100 mm nominal inner dia Pipes | Mtr | 10.00 | | | 0.00 |
| 1.2.10 | 150 mm nominal inner dia Pipes | Mtr | 5.00 | | | 0.00 |
| 1.3 | Providing, laying and jointing of galvanised Iron(MS) Pipes with specials such as bends, elbows, tees etc) class heavy including testing of joints , cost of pipes, specials and jointing materials all complete.Pipes and sockets Conforming to IS-1239/2004 Part-I & Part-II. | | | | | |
| | <i>Internal work - Exposed on wall</i> | | | | | |
| 1.3.1 | 65 mm dia nominal bore | Mtr | 256.00 | | | 0.00 |
| 1.3.2 | 80 mm dia nominal bore | Mtr | 14.00 | | | 0.00 |
| 1.3.3 | 100 mm dia nominal bore | Mtr | 448.00 | | | 0.00 |
| 1.3.4 | 150 mm dia nominal bore | Mtr | 112.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| 1.4 | Painting G.I.pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality : | | | | | |
| 1.4.1 | 65 mm dia nominal bore | Mtr | 256.00 | | | 0.00 |
| 1.4.2 | 80 mm dia nominal bore | Mtr | 14.00 | | | 0.00 |
| 1.4.3 | 100 mm dia nominal bore | Mtr | 448.00 | | | 0.00 |
| 1.4.4 | 150 mm dia nominal bore | Mtr | 112.00 | | | 0.00 |
| 1.5 | Providing and fixing fullway gate valves tested to 21.00kg/sq.cm.Conforming to IS 778/1984 (Reaffirmed 2005) Class-I | | | | | |
| 1.5.1 | 25 mm dia nominal bore | No. | 10.00 | | | - |
| 1.5.2 | 32 mm dia nominal bore | No. | 91.00 | | | 0.00 |
| 1.5.3 | 40 mm dia nominal bore | No. | 55.00 | | | 0.00 |
| 1.5.4 | 50 mm dia nominal bore | No. | 25.00 | | | 0.00 |
| 1.5.5 | 65 mm dia nominal bore | No. | 63.00 | | | 0.00 |
| 1.5.6 | 80 mm dia nominal bore | No. | 14.00 | | | 0.00 |
| 1.6 | Providing and fixing air valve threaded of following diameter | | | | | |
| 1.6.1 | 20 mm dia nominal bore | No. | 90.00 | | | 0.00 |
| 1.7 | Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| 1.7.1 | 15 mm dia nominal bore | No. | 40.00 | | | 0.00 |
| 1.7.2 | 20 mm dia nominal bore | No. | 770.00 | | | 0.00 |
| 1.7.3 | 25 mm dia nominal bore | No. | 31.00 | | | 0.00 |
| 1.8 | Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : | | | | | |
| 1.8.1 | Fire/Domestic OH Tank 20mm Dia | No. | 8.00 | | | 0.00 |
| 1.9 | Providing and fixing gunmetal/brass check (non-return) valves Class-I, Conforming to IS-778/1984 (Reaffirmed 2005) female ends, tested to 21.00kg/sq.cm. | | | | | |
| 1.9.1 | 65 mm nominal Vertical bore (Flanged) | No. | 32.00 | | | 0.00 |
| 1.10 | Supply and Installation of Woltman Type, drydial, inferential type, Magnetically coupled, Class,, B" accuracy water meters in any position with interchangeable mechanism Conforming to ISO4064:1993 standard with EEC certification mark, with IP68 protection class copper can register with 5mm tempered mineral glass cover, AMR compatibility with 5 years warranty complete and successful accuracy test certificate from FCRI, Palakkad with C.I. Body „T" Type strainer. | | | | | |
| 1.10.1 | 80mm Dia | No. | 4.00 | | | 0.00 |
| 2 | Soil, Waste, Vent and Rain water Drain | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| 2.1 | Supplying, fixing and testing PVC soil, waste and vent pipes (SWR) conforming to IS 13592 :1990, type B with rubber ring (confirming to IS 5382) joint inclusive of all necessary specials like bends, tees, offsets, doorbends, junctions, cowls, Clean out etc., laid under floor / fixed on walls, and in pipe shafts etc., complete. | | | | | |
| 2.1.1 | 40mm Dia | Mtr | 64.00 | | | 0.00 |
| 2.1.2 | 50mm Dia | Mtr | 64.00 | | | 0.00 |
| 2.1.3 | 75mm Dia | Mtr | 1811.00 | | | 0.00 |
| 2.1.4 | 110mm Dia | Mtr | 5333.00 | | | 0.00 |
| 2.1.5 | 160mm Dia | Mtr | 10.00 | | | 0.00 |
| 2.2 | Supplying, fixing and testing S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 soil, waste and vent pipes , joint inclusive of all necessary specials like bends, tees, offsets, doorbends, junctions, cowls, etc., laid under floor / fixed on walls, and in pipe shafts etc., complete | | | | | |
| 2.2.1 | 150mm Dia | Mtr | 1387.00 | | | 0.00 |
| 2.2.2 | 100mm Dia | Mtr | 363.00 | | | 0.00 |
| 2.3 | Supplying, fixing and testing PVC rain water pipes conforming to IS 13592 - 1992 (SWR Class A) with all fittings like shoes, bends fixed in the pipe shafts (ducts) with suitable supports etc., complete. | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|----------|---|------|----------|-------------|------------------------|---------------|
| 2.3.1 | 110mm Dia | Mtr | 303.20 | | | 0.00 |
| 2.3.2 | 160mm Dia | Mtr | 1137.60 | | | 0.00 |
| 2.3.3 | 200mm Dia | Mtr | 249.60 | | | 0.00 |
| 2.4 | Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams. | | | | | |
| 2.4.1 | 150mm Dia | No. | 80.00 | | | 0.00 |
| 2.5 | Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. | | | | | |
| 2.5.1 | "P" trap 110mmx110mm long | No. | 48.00 | | | 0.00 |
| 2.5.2 | Nahani trap 110x75mm | No. | 112.00 | | | 0.00 |
| 3 | SANITARY INSTALLATION | | | | | |
| 3.1 | Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete. | | | | | |
| 3.1.1 | W.C. pan with ISI marked white solid plastic seat and lid | No | 80.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| 3.2 | Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required | | | | | |
| 3.2.1 | Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern | No | 16.00 | | | 0.00 |
| 3.3 | Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : | | | | | |
| 3.3.1 | White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps | No | 80.00 | | | 0.00 |
| 3.4 | Providing and fixing 40 dia. P.V.C. waste pipe for wash basin & urinals including P.V.C. waste fittings complete. | | | | | |
| 3.4.1 | Semi rigid Pipe 40mm Dai | No | 20.00 | | | - |
| 3.5 | Providing and fixing 15 mm nominal bore Brass bib/stop cock of approved quality and weighting not less than 400 grams): | | | | | |
| 3.5.1 | Stop Cock | No | 240.00 | | | 0.00 |
| 3.5.2 | Bib Cock | No | 80.00 | | | 0.00 |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 3.6 | Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required: | | | | | |
| 3.6.1 | Bottle Trap | No | 128.00 | | | 0.00 |
| 3.7 | Providing and fixing Waste Coupling for wash basin and Urinal , of approved quality and colour. Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms | No | 128.00 | | | 0.00 |
| 3.80 | Providing and fixing uplasticised PVC connection pipe with brass unions :450mm length with 15mmdia Nominal Bore | No | 80.00 | | | 0.00 |
| 3.90 | Providing & fixing of Stainless Steel wall mounted manual operated liquid soap dispenser (Make Utec Cat No. UT 325 or equivalent). | No | 48.00 | | | 0.00 |
| 3.10 | Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required: | | | | | |
| 3.10.1 | Toilet Paper Holder | No | 80.00 | | | 0.00 |
| 4 | PUMP ROOM | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|---|------|----------|-------------|------------------------|---------------|
| 4.1 | Providing, installing, testing and commissioning of factory assembled variable speed hydropneumatic system mounted on a common base plate comprising of Three Nos. vertical centrifugal pumping set with S.S body, stainless steel impeller and mechanical seal, shaft directly coupled to a TEFC induction motor suitable for 400/440 volts, 3 phase, 50 cycles AC supply with 150 mm dia pressure gauge with gunmetal isolation cock, vibration eliminating pads under foundation, one No. microprocessor based controller, two Nos. variable frequency drives, one No. remote sensors, transmitters, sequence running cotroller, dry running Protection, motor control centre, necessary power and control cabling from MCC to pumps including required rating of MCB, two Nos. required capacity M.S diaphragm tank with interchangeable butyl rubber membrane, complete in all respects including stainless steel grade 316 suction and delivery headers with required dia pipe and valves , power box, equipped with fuses/ isolators/circuit breakers as required. | | | | | |
| | | | | | | |
| | Domestic Water Supply | | | | | |
| 4.1.1 | 2 working and 1 no. 50% standby = 1 set (3 pumps) | | | | | |
| | Duty :1.8 LPS at 50M head -Equivalent to Grundfos Booster Pac MPC 3xCR 5-11 | No | 7.00 | | | 0.00 |
| | | | | | | |
| 4.1.2 | 2 working and 1 no. 50% standby = 1 set (3 pumps) | | | | | |
| | Duty :1.9 LPS at 50M head - Equivalent to Grundfos Booster Pac MPC 3xCR 5-11 | No | 1.00 | | | 0.00 |
| | | | | | | |
| 4.1.3 | 2 working and 1 no. 100% standby = 1 set (3 pumps) | | | | | |

| Sr. No. | Description of Items | Unit | Quantity | Rate in INR | Rate in words (in INR) | Amount in INR |
|---------|--|------|----------|-------------|------------------------|---------------|
| | Duty :1.45 LPS at 50M head - Equivalent to Grundfos Booster Pac MPC 3xCR 5-11 | No | 1.00 | | | 0.00 |
| | | | | | | |
| | Flushing Water Supply | | | | | |
| 4.1.4 | 2 working and 1 no. 50% standby = 1 set (3 pumps) | | | | | |
| | Duty :3.3 LPS at 50M head - (for Domestic Water) Equivalent to Grundfos Booster Pac MPC 3xCR 5-4 | No | 7.00 | | | 0.00 |
| | | | | | | |
| 4.1.5 | 2 working and 1 no. 50% standby = 1 set (3 pumps) | | | | | |
| | Duty :1.9 LPS at 50M head - (for Domestic Water) Equivalent to Grundfos Booster Pac MPC 3xCR 5-11 | No | 1.00 | | | 0.00 |
| | | | | | | |
| 4.1.6 | 2 working and 1 no. 50% standby = 1 set (3 pumps) | | | | | |
| | Duty :1.75 LPS at 50M head - (for Domestic Water) Equivalent to Grundfos Booster Pac MPC 3xCR 5-11 | No | 1.00 | | | 0.00 |
| | | | | | | |
| 4.2 | Supplying, fixing, testing and commissioning of dewatering pumps (Submersible 'type) of adequate HP, capable of giving a required discharge at suitable head to 'workon 3Ph 50Hz, 400/440V with necessary unions, flanges, with water level 'controllerwith cabling etc., complete..[Pump room & basement storm water drainage] (Grundfos or equivalent make) | | | | | |
| | | | | | | |
| 4.2.1 | 1 working and 1 no. 100% standby = 1 set (2 pumps) | | | | | |
| | Duty :5 LPS at 15M head - Equivalent to grundfos DPK10.80.22.5.0D | No | 32.00 | | | 0.00 |
| | | | | | | |
| | Sub total | | | | | 0.00 |