



**MAZAGON DOCK SHIPBUILDERS LIMITED**

(Formerly known as Mazagon Dock Ltd.)

CIN : U35100MH1934GOI002079

(A Government of India Undertaking)

Shipbuilders to the Nation

Dockyard Road, Mazagon,

Mumbai 400 010.

INDIA

**Renovation of Existing Toilet block at 4<sup>th</sup>, 5<sup>th</sup>, & 6<sup>th</sup> Floor of  
Reclamation Building, East Yard, MDL, Dockyard Road,  
Mumbai.**

**VOLUME-III**

**Scope of Work, Tender Drawings  
& Price Bid (Part-II)**

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**1 BRIEF SCOPE OF WORK:**

**a. Civil Works:**

1.1 The Scope of work comprises of the following:

- 1.1.1 Dismantling carefully tile work laid in cement mortar & carting away the same outside MDL.
- 1.1.2 Dismantling carefully damaged portion of cement plaster of any finish.
- 1.1.3 Removing carefully existing door or windows with frame and shutters.
- 1.1.4 Dismantling carefully existing WC pan (Indian or European).
- 1.1.5 Removing carefully existing Urinals.
- 1.1.6 Removing carefully existing flushing tank.
- 1.1.7 Removing carefully existing Wash basin.
- 1.1.8 Removing carefully existing Urinal partitions (stone work).
- 1.1.9 Dismantling carefully existing G.I pipeline along with plumbing fittings.
- 1.1.10 Dismantling existing C.I or AC or PVC pipeline.
- 1.1.11 Dismantling the waterproofing treatment and taking the debris outside MDL premises.
- 1.1.12 Demolishing brick work manually/ by mechanical
- 1.1.13 Demolishing cement concrete
- 1.1.14 Dismantling carefully RCC Work
- 1.1.15 Exposing existing old and worn out RCC column, beams and slabs by chipping off concrete up to main reinforcement.
- 1.1.16 Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping.
- 1.1.17 Providing & fixing in position reinforcement bars.-TMT
- 1.1.18 Providing & Laying Reinforced cement concrete
- 1.1.19 Providing and applying two coats of Rust preventive coating of IPNET.
- 1.1.20 Providing and applying POLYMER MODIFIED MORTAR (PMM).
- 1.1.21 Providing & laying micro concrete of M/s Sunanda/ Krishna/ Fosroc/ Sika or approved make.
- 1.1.22 Providing & laying water proofing treatment to the toilet flooring
- 1.1.23 Extra for providing additional thickness of brick bats.
- 1.1.24 Providing Brick masonry with conventional
- 1.1.25 Providing & laying vitrified antiskid floor tiles of different sizes
- 1.1.26 Providing and laying Ceramic glazed floor tiles 300x300 mm.
- 1.1.27 Providing and fixing 1st quality ceramic glazed tiles –dado.
- 1.1.28 Providing and fixing in position approved white vitreous china pedestal type water closet pan.
- 1.1.29 Providing and fixing in position approved white glazed Orrisa pattern water closet pan.
- 1.1.30 Providing & fixing under the counter wash basin/over the counter washbasin.
- 1.1.31 Providing and fixing urinal of approved make.
- 1.1.32 Providing and fixing Urinal partitions/Division plate.
- 1.1.33 Providing and fixing granite 18 mm thick gang saw cut, mirror polished, premoulded and pre-polished, machine.
- 1.1.34 Providing and fixing kadappa stone slab of 30-40 mm thick.
- 1.1.35 Providing opening of required size & shape for wash basin/kitchen sink
- 1.1.36 Providing & fixing Quarter turn Bib Cock of approved make.

- 1.1.37 Providing & fixing Quarter turn concealed Stop cock of approved make.
- 1.1.38 Providing & fixing Basin Pillar Cock of approved make.
- 1.1.39 Providing & fixing Quarter turn Angular Stop cock of approved make.
- 1.1.40 Providing and fixing Two way Bib cock with wall flange of approved make.
- 1.1.41 Providing and fixing Hand shower of approved make.
- 1.1.42 Providing & fixing Auto Closing Concealed Urinal Flush Valve of approved make.
- 1.1.43 Providing and fixing bottle trap of approved make.
- 1.1.44 Providing & fixing PVC soil / Waste water pipes-110 mm and 75 mm dia. Of approved make.
- 1.1.45 Providing and fixing P.V.C. waste pipe for sink or wash basin- 32 mm & 40 mm.
- 1.1.46 Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes-15 and 25 mm dia.
- 1.1.47 Providing & fixing `C` class concealed G.I water supply pipeline-15 mm dia.
- 1.1.48 Providing & fixing `C` class exposed G.I water supply pipeline.-25, 32, 50 mm dia.
- 1.1.49 Providing & fixing 10 litre white PVC flushing cistern.
- 1.1.50 Providing & fixing 4" dia. PVC Nahani trap with PVC jali.
- 1.1.51 Providing & fixing Continental Soap Dish Holder of approved make.
- 1.1.52 Providing & fixing Towel rail 300mm long of approved make. .
- 1.1.53 Providing and fixing 600 x 120 x 5mm glass shelf.
- 1.1.54 Providing and fixing shower rose of approved make.
- 1.1.55 Providing and fixing brass robe hook.
- 1.1.56 Providing and fixing mirror rectangular shape 1500 x 450 mm of approved make.
- 1.1.57 Providing and fixing 600\*450mm bevelled edge mirror of approved make.
- 1.1.58 Providing & fixing 30mm thick fibre glass reinforced polyester door shutter
- 1.1.59 Providing and fixing ISI marked Anodised Aluminium Fittings-Sliding door bolts of size 250 x 16mm, Tower bolts of size 200 x 10mm, Handles of 125mm, Hanging floor door stopper.
- 1.1.60 Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer
- 1.1.61 Providing and fixing aluminium louvered windows.
- 1.1.62 Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions.
- 1.1.63 Providing and fixing glazing to doors & windows.
- 1.1.64 Providing and fixing fly/Mosquito proof Stainless Steel wire mesh.
- 1.1.65 Providing and applying plastering on RCC/brick masonry work with 12 mm thick.
- 1.1.66 Providing and applying 20 mm thick waterproof cement plaster(1:4) in two coats for external surface.
- 1.1.67 Providing & Applying two coats of plastic emulsion paint
- 1.1.68 Finishing walls with Premium Acrylic Smooth exterior paint
- 1.1.69 Providing and Fixing Magnetic lock

**b. Electrical Works:**

1.2 The brief scope of work is as under:

- 1.2.1 Supply, Installation, Testing and Commissioning of Distribution Board.
- 1.2.2 Supply, Installation, Testing and Commissioning Minimum Voltage Cabling.
- 1.2.3 Supply, Installation, Testing and Commissioning of SFU, RCCB & MCB.
- 1.2.4 Supply, Installation, Testing and commissioning of Ceiling / Wall trunking System.
- 1.2.5 Supply, Installation, Testing and Commissioning of Wiring installations.
- 1.2.6 Supply, Installation, Testing and Commissioning of Switches, Switch Socket & Switch Boards.
- 1.2.7 Supply, Installation, Testing and Commissioning of LIGHTING FIXTURES & EXHAUST FANS.
- 1.2.8 Dismantling of existing items such as:
  - i. Light, Exhaust fan, & independent plug point wiring of all types.
  - ii. Florescent fittings of any type and size.
  - iii. Ceiling fans/ Exhaust fan/cabin fan/brackets complete with accessories, GI down Rod, frame etc. and clearing site.
  - iv. Existing cables of all types and sizes.

Dismantled electrical items shall be handed over to MDL.

**The detailed scope of work has been indicated in the Bill of Quantities (BOQ) Price Bid Part-II at Enclosure-1.**

**2 TENDER DRAWINGS:**

Sr. NO	TITLE	TENDER DRAWING NO
01	Gents/Ladies Officer Toilet Block	IP/EY/RCL/IV Floor
02	Ladies Officer Staff Toilet Block	IP/EY/RCL/V-1001
03	Ladies Officer Staff Toilet Block	Reclamation Building-6 <sup>th</sup> Floor
04	Electrical Layout for 4 <sup>th</sup> Floor Reclamation Bldg.	IP/ELEC/361/DWG/01
05	Electrical Layout for 5 <sup>th</sup> Floor Reclamation Bldg.	IP/ELEC/361/DWG/02
06	Electrical Layout for 6 <sup>th</sup> Floor Reclamation Bldg.	IP/ELEC/361/DWG/03

The above Tender Drawings in PDF form are attached separately along with Tender Document.

Enclosure-1

**PRICE BID (PART-II)**  
**BILL OF QUANTITIES**  
**(To be submitted online)**

**Sub: Renovation of Existing Toilet block at 4<sup>th</sup>, 5<sup>th</sup>, & 6<sup>th</sup> Floor of Reclamation Building, East Yard, MDL, Dockyard Road, Mumbai.**

**Ref: MDL Tender No. 180000029**

**INSTRUCTION TO THE BIDDER:**

1. The Work Contract Tax (WCT) under VAT and Service Tax **IS NOT INCLUDED** in the rates indicated below for this section. Bidder is required to quote Work Contract Tax (WCT) under VAT and Service Tax including Swachh Bharat Cess and Kisan Kalyan Cess separately in Percentage which will be added to the rate quoted for this section.
2. Bidder to note Clause No. 2 (Defect Liability Period), Clause No 3 (Security Deposit), Clause No 4 (Performance bank Guarantee), Clause No 7 (Prices and Taxes), Clause No 15 (Insurance) & Clause No 16 (Water Proofing Guarantee) of Volume II before quoting.
3. MDL reserves the right to increase the quantity of any item in the BOQ to any extent provided the increase in the total Estimated Amount due to this change in the quantity over BOQ quantity multiplied by specified rate for all the items put together do not exceed 25% of the Accepted Contract Value. Bidder to note Clause No 13 of Volume II before quoting.

Sr. No.	Description	Unit	Qty	Rate (₹)	Amount (₹)
<b>A.</b>	<b>Civil Works</b>				
1	<b>Dismantling carefully tile work</b> laid in cement mortar & carting away the same outside MDL to Municipal dumpig yard etc complete.				
(i)	For tile thickness upto 25mm	Sqm	200.00	46.18	9236.00
2	<b>Dismantling carefully</b> damaged portion of <b>cement plaster</b> of any finish from the wall, ceiling, beams etc & raking out the joints to a suitable depth up to 20mm & carting away debris etc outside MDL premises to Municipal Dumping ground. complete as directed at any height / Location	Sqm	485.00	75.80	36763.00
3	<b>Removing carefully existing door or windows</b> with frame and shutters and making good etc to the existing surface including stacking within MDL premises etc. complete as directed.	Nos	33.00	298.77	9859.41
4	<b>Dismantling carefully existing WC pan (Indian or European)</b> including disconnecting the sanitary and water supply connections, removing and	Nos	9.00	90.46	814.14

	breaking flooring and bed concrete around pans and removing pan carefully and disposal of material outside MDL premises etc. all complete as directed.				
5	<b>Removing carefully existing Urinals</b> with frame including disconnecting the sanitary and water supply connections, removing the same carefully and taking away the same outside MDL premises etc all complete	Nos	10.00	40.82	408.20
6	<b>Removing carefully existing flushing tank</b> of any capacity of any materials including brackets and disconnecting and reconnecting existing fittings & disposing the dismantled materials outside the MDL premises etc. all complete as directed.	Nos	13.00	423.78	5509.14
7	<b>Removing carefully existing Wash basin</b> with frame including disconnecting the sanitary and water supply connections, removing the same carefully and taking away the dismantled items outside MDL premises etc. all complete	Nos	9.00	40.82	367.38
8	<b>Removing</b> carefully existing <b>Urinal partitions</b> (stone work) and taking away the same outside MDL premises etc. all complete as directed.	Nos	9.00	40.82	367.38
9	<b>Dismantling carefully existing G.I pipeline</b> of any dia handing over the same to the MDL authorities etc complete.	Rm	135.00	32.90	4441.50
10	<b>Removing tap</b> of any size carefully and handing over the same to the MDL authorities etc complete (To be used when GI pipe dismantling item is not executed)	Nos	21.00	19.58	411.18
11	<b>Dismantling existing C.I or AC or PVC pipeline</b> along with fittings & clamps including carting away debris etc. complete as directed.				
i)	75 to 80mm dia pipe line	Mtrs.	200.00	32.90	6580.00
ii)	110 mm dia pipe	Mtrs.	205.00	34.02	6974.10
12	Dismantling the <b>waterproofing treatment and lowering down debris</b> of the existing waterproofing treatment from the terrace area/ toilet area by any means without causing dust nuisance including cleaning the	Cu.M	15.00	624.24	9363.60

	site & carting away the same outside MDL to Municipal dumpig yard complete as directed by Engineer Incharge.				
13	Demolishing brick work with mortar manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material outside MDL premises per direction of Engineer-in-charge.	Cu.M	2.00	1398.59	2797.18
14	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	Cu.M	1.00	1563.57	1563.57
15	<b>Dismantling carefully RCC Work</b> including cutting bars and stacking of steel bars within MDL premises and disposal of un-serviceable material outside MDL premises to municipal dumping ground complete as directed at any height / Location etc.	Cum.	1.00	2050.59	2050.59
16	Exposing existing old and worn out RCC column, beams and slabs etc upto main reinforcement carefully by means of chisel and hammer including necessary scaffolding including carting away the material outside MDL premises to the municipal dumping ground etc complete as directed. (Surface area exposed after final chipping chiseling etc will only be measured and paid for)	Sqm	45.00	126.17	5677.65
17	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removing solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush and applying polymer bond to the old concrete surface before applying Polymer mortar.	Sqm	10.00	527.49	5274.90
18	Providing & fixing in position <b>reinforcement bars</b> including straightening, cutting, bending, placing in position & binding with				

	binding wires / welding where ever necessary for slabs / beams / columns; etc. all complete as directed at any location ( Lapping / chairs will be measured & paid separately )				
i	Thermo-Mechanically Treated bars	Kgs.	250.00	87.52	21880.00
19	Providing & Laying Reinforced cement concrete in position excluding centering, shuttering, finishing & reinforcement bars, including curing etc;complete as directed.. (1:1:2) Concrete (1 Cement:1 coarse aggregate: 2 graded stone aggregate 20mm nominal size)	Cum.	1.00	9035.88	9035.88
20	Providing and applying two coats of <b>Rust preventive coating</b> IPNET of Krishna Conchem / Fosroc/ Sika/ Sunanda or equivalent approved make after cleaning the existing surface from dust/ loose particles by applying air water under pressure etc complete as directed	Litre	10.00	553.23	5532.30
21	<b>Providing and applying POLYMER MODIFIED MORTAR</b> (PMM) in proportion of 1(Polymer) : 5(Cement) : 15 (Quartz sand) by weight with water cement ratio of 0.35 including application of bond coat of Krishna Conchem or equivalent approved make using brush in ratio of 1 (Polymer) :1 (Cement) : 0.35 (water) by weight including cleaning of surface with air mixed with water under pressure, and subsequent layer upto 10mm after hardening curing; all complete.(Polymer manufactured by sunanda, Krishna, pidilite, fosroc, acrochem, build core or equivalent)	Kgs.	2250.00	87.89	197752.50
22	Providing & laying micro- concrete Polycrete "A" of M/s. Sunanda/Krishna/Sika/Fosroc or equivalent approved make using 12.5%of water by weight of polycrete mix over a bond coat of approved make in the ratio of 1 polymer : 1cement, curing etc;all complete at any location / Height	Kg	500.00	25.62	12810.00
23	Providing & laying <b>water proofing treatment</b> to the <b>toilet</b> flooring by giving injections with cement	Sqm	40.00	817.69	32707.60



	solution with waterproofing compound into the floor slab so as to make it consistent, homogenous and impervious against leakage, seepage etc. The sunk portion shall then be covered with necessary brick bat waterproof coba in C.M.(1:5) of 100mm average thickness in required slope mixed with approved waterproofing compound as per manufacturer's specifications finished rough with jointless waterproof cement plaster in C.M.(1:3) 12mm to 15mm thk in all positions extending the water proofing upto 300 mm height, curing, leakage test after impounding the water for 7 days, etc. complete with 5 years guarantee etc.(Measurement in plan area ).				
24	Extra for providing additional thickness of brick bats over average thickness of 100mm in 1:5 cement mortar mixed with waterproofing compound of approved make as per manufacturers specification as directed.	Cum.	16.00	6166.95	98671.20
25	Providing Brick masonry with conventional / IS type bricks one brick thick including scaffolding, waterring, racking out joints etc. complete IN CEMENT MORTAR ( 1 : 4 )				
(i)	In superstructure at all floors	Cum	3.00	7273.43	21820.29
26	Providing & laying <b>vitified antiskid floortiles in different sizes</b> ( thickness as specified by the manufacturer ) with water absorption's less than 0.08% and confirming 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				
	Size of Tiles 60cm X 60 cm	Sqm	20.00	1845.90	36918.00
27	Providing and laying <b>Ceramic antiskid floor tiles 300*300 mm</b> ( thickness as specified by the manufacture ) of 1st quality conforming to IS 15622 of approved make (RAK,SOMANY,	Sqm	55.00	1081.97	59508.35

	KAJARIA, NITCO, or equivalent make) in approved Colour / shade laid on 20mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse Sand) including pointing the joints with white cement and matching pigment etc. complete as directed.				
28	Providing and fixing 1st quality <b>ceramic glazed tiles</b> conforming to IS 15622 ( thickness as specified by the manufacture ) of approved make like RAK, SOMANY, KAJARIA, NITCO or equivalent make in all colours, shades of any size as approved (except burgundy, bottle green, black) in skirting, risers of steps and <b>dados</b> over 12mm thick bed of Cement Mortar 1:3 (1 Cement : 3 Coarse Sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete	Sqm	210.00	1044.46	219336.60
29	Providing and fixing in position approved white <b>vitreous china pedestal type water closet pan</b> with ISI mark (EWC) (Parryware, Hindware or any other approved make & colour ) with ISI marked white solid plastic seat and lid with all fittings and fixtures including cutting and making good the same, making inlet and outlet connections etc. complete including fittings / connectors ;complete as directed. <b>(Excluding Flushing Cistern)</b>	Each	6.00	3074.34	18446.04
30	Providing and fixing in position approved <b>white glazed Orrisa pattern water closet pan</b> with ISI mark (Parryware, Hindware or any other approved make & colour) 580mm x 440mm with integral type foot rests 100mm dia sand cast iron P or S Trap including breaking walls, floor and making good the same, making inlet and outlet connections etc. complete including fittings / connectors ;complete as directed. <b>(Excluding Flushing Cistern)</b>	Each	3.00	3173.71	9521.13
31	Providing and fixing under Counter washbasin of oval shape & size 560x470 mm of Cera make, model	Each	9.00	2801.99	25217.91

	no.-1005A with C.I. brackets, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require.				
32	Providing and fixing Urinal of Hindware /Jaquar make	No	10.00	9473.40	94734.00
33	Providing and fixing Urinal partition/ Division Plate of Hindware/ Jaquar make	No	10.00	2735.28	27352.80
34	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels				
i)	Area of slab upto 0.5 Sqm	Sqm	50.00	4902.08	245104.00
ii)	Area of slab above 0.5 SqM	Sqm	30.00	4961.30	148839.00
35	Providing and fixing <b>kadappa stone slab</b> of 30-40mm thick for platform of required size in 1:4 cement mortar including providing & fixing border patti on front edge, filling joints with white cement mixed with matching pigment, curing, ceaning etc. complete as directed.	Sqm	30.00	918.03	27540.90
36	Extra for providing opening of required size & shape for wash basin/kitchen sink in kitchen platform, vanity counter and similar location in marble/Granite/stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	each	18.00	461.69	8310.42
37	Providing & fixing Clarion Quarter turn Bib Cock CQT-23047 of `Jaquar' make etc. complete as directed	No	14.00	709.88	9938.32
38	Providing & fixing Clarion Quarter turn concealed Stop cock code CQT-23083 of `Jaquar' make	No	24.00	1010.21	24245.04

	etc. complete as directed				
39	Providing & fixing Pressmatic Basin Pillar Cock Code PRS-031 of <b>Jaquar</b> make etc. complete as directed	No	9.00	1747.39	15726.51
40	Providing & fixing Clarion Quarter turn Angular Stop cock code CQT-23053 of <b>Jaquar</b> make etc. complete as directed	No	9.00	682.58	6143.22
41	Providing and fixing Two way Bib cock with wall flange of JAQUAR, model no. LYR-38041 including fixing the same with tafflon tape and necessary concealed fitting arrangement etc. complete as directed by Engineer Incharge.	No	7.00	1784.76	12493.32
42	Providing and fixing Handshower of JAQUAR make, model no.ALD-573 with 8 mm dia. 1 meter long flexible Tube & wall hook including necessary arrangement etc. complete and as directed by Engineer Incharge.	No	7.00	1555.78	10890.46
43	Providing & fixing Pressmatic Auto Closing Concealed <b>Urinal Flush Valve</b> of code PRS-073 of <b>Jaquar</b> make etc. complete as directed	No	10.00	2020.42	20204.20
44	Providing and fixing <b>bottle trap</b> of ' <b>Jaquar</b> ' make catalogue no ALD769 or equivalent etc all complete as directed	No	19.00	1255.93	23862.67
45	Providing & fixing <b>PVC soil / Waste water pipes</b> having wall thickness of 3.2 to 3.8mm conforming to I.S.13592-1992 including PVC plug bend, necessary fittings such as bend, tees, single junction, double junction, slotted vent offsets on walls or in the ground including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall and fixing with clips of approved quality and number, filling the joints using rubber gasket with solvent cement including necessary scaffolding and maintenance for 3 years for any leakages or dislocation of pipes. (Prince or equivalent apprved make)				
i)	75 mm dia. PVC pipe.	Mtrs.	200.00	323.35	64670.00
ii)	110 mm dia. PVC pipe.	Mtrs.	205.00	522.61	107135.05
46	Providing and fixing P.V.C. waste				

	pipe for sink or wash basin including P.V.C. waste fittings complete. -Semi rigid pipe				
i)	Semi rigid pipe-32 mm dia	Rm	30.00	98.58	2957.40
ii)	40mm dia semi rigid pipe	Rm	10.00	106.21	1062.10
iii)	32mm dia flexible pipe	Rm	10.00	95.48	954.80
iv)	40mm dia flexible pipe	Rm	10.00	98.58	985.80
47	Providing and fixing <b>Chlorinated Polyvinyl Chloride (CPVC) pipes</b> , having thermal stability for hot & cold water supply including all CPVC plain and 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.				
(i)	15 mm nominal outer dia pipes	Rm	30.00	180.31	5409.30
(ii)	25 mm nominal outer dia pipes	Rm	30.00	267.30	8019.00
48	Providing & fixing 'C' class <b>concealed G.I water supply pipeline</b> of zenith / GST / TATA with ISI mark with necessary painting with anti corrosive bitumastic paint, cutting chases and making good the wall, fittings fixed with G.I clamps including testing and necessary pipe fittings such as elbows, tees, bends, unions, reducers etc., complete as directed.				
i)	15mm dia. Nominal bore	Rm	85.00	347.06	29500.10
49	Providing & fixing 'C' class <b>exposed G.I water supply pipeline</b> of zenith / GST / TATA with ISI mark with necessary G.I fittings such as elbows, tees, bends, unions, reducers etc. and clamps including cutting and making good the wall, testing etc., complete as directed.				
i)	25mm dia. Nominal bore	Rm	81.00	371.54	30094.74
ii)	32mm dia. Nominal bore	Rm	15.00	438.92	6583.80
iii)	50mm dia. Nominal bore	Rm	15.00	673.97	10109.55
50	Providing & fixing <b>10 litre white PVC flushing cistern</b> of conforming to IS:7231 Parryware / Hindware or equivalent make as approved with ISI mark with a pair of brackets complete with necessary fittings such as PVC connector, inlet pipe connection up to IWC / EWC, union & couplings for connections with	Nos	9.00	1174.29	10568.61

	inlet, outlet & overflow pipe with 25mm diameter mosquito proof coupling of approved municipal design etc. including making holes in walls & reinstating the same in etc. complete as directed.				
51	Providing & fixing <b>4" dia. PVC Nahani trap</b> with PVC jali including making holes in walls / beams etc. and cement grouting (1:1) making good the damaged portion finished in C.M(1:3), curing complete as directed.	Nos	27.00	463.42	12512.34
52	Providing & fixing Continental <b>Soap Dish Holder</b> of ' <b>Jaquar</b> ' Code ACN-1131N all complete as directed	No	9.00	546.06	4914.54
53	Providing & fixing <b>Towel rail</b> 300mm long of ' <b>Jaquar</b> ' make Continental Accessories Catalogue no. ACN-1101 etc. complete as directed.	No	9.00	1310.54	11794.86
54	Providing and fixing 600 x 120 x 5mm <b>glass shelf</b> with edges round of supported on anodised aluminium angle frame with CP brass brackets and guard rail complete fixed with 40mm long screws, rawl plugs etc complete	Nos	9.00	687.27	6185.43
55	Providing and fixing Over head shower of JAQUAR make, model no.OHS-1709, 105 mm dia. Round shape single flow with Air Effect (ABS Body & Face Plate chrome Plated) with Rubit Cleaning system including shower Arm model no. SHA -483 casted 190 mm Long flat shape for wall mounted showers with Flange.	No	3.00	3620.88	10862.64
56	Providing and fixing <b>brass robe hook</b> etc. complete as directed	Nos	13.00	84.85	1103.05
57	Providing and fixing <b>mirror rectangular shape 1500 x 450 mm</b> size (outer dimentions) with plastic moulded frame of approved make and shade with 6mm thick hard board backing etc. all complete	Nos	6.00	1717.18	10303.08
58	Providing and fixing <b>600*450mm</b> bevelled edge <b>mirror</b> of superior glass (of approved quality) of make Modifloat/Saint Gobin or equivalent with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and	Nos	6.00	1003.59	6021.54

	washers complete				
59	Providing & fixing <b>30mm thick fibre glass reinforced polyester door shutter</b> as per IS14856 without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides etc. complete as directed.	Sqm	30.00	3283.41	98502.30
60	Providing and fixing ISI marked <b>Anodised Aluminium Fittings</b> (anodic coating not less than AC 10 as per IS 1868 transparent or dyed to required colour or shade )				
(i).	<b>Sliding door bolts</b> of size 250 x 16mm with nuts and screws complete	Nos	17.00	237.49	4037.33
(ii).	<b>Tower bolts</b> of size 200 x 10mm with nuts and screws complete	Nos	17.00	100.55	1709.35
(iii).	<b>Handles</b> of 125mm with necessary screws complete	Nos	34.00	88.11	2995.74
(iv).	<b>Hanging floor door stopper</b> with single rubber stopper with necessary screws complete	Nos	17.00	44.42	755.14
61	Providing and Fixing Magnetic lock of approved make	No	17.00	97.85	1663.45
62	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm) with double speed adjustment with necessary accessories and screws etc. complete.	each	6.00	1351.90	8111.40
63	Providing and fixing <b>aluminium louvered windows</b> consisting of vertical arm (40 x 12mm) with holders, lever and locking arrangement weighing at 0.91 kg/m with 3mm thick sheet glass louvers etc complete as directed	Sqm	11.00	1474.23	16216.53
64	Providing and fixing <u>anodised aluminium work for doors, windows, ventilators and partitions</u> with extruded built up standard tubular and other sections of approved make conforming to IS 733 and IS 1285, Anodised transparent or dyed to required shade according to IS 1868. (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips, or				

	with expansion hold fastners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle,. Aluminium snap beading for glazing/ panelling, CP brass/ stainless steel screws, all complete as per drawings and the directions of Engineer in Charge (Glazing and panelling to be paid for seperatly)				
(i)	For fixed Portion	kg	150.00	452.34	67851.00
65	Providing and fixing <b>glazing</b> in wooden/aluminium door, window, ventilator shutters and partitions etc with PVC/ neoprene gasket etc complete as per the architectural drawings and the directions of engineer in charge (Cost of aluminium snap beading shall be paid in basic item ) Make of glass Saint Gobin, ASAI, Modi Float or equivalent				
(i)	With float glass panes of 5.5mm thickness (weight not less than 13.75 kg/ sqm)	Sqm	2.00	1327.94	2655.88
66	Providing & Fixing Fly / Mosquito proof Stainless Steel wire mesh grade 304 to anodised aluminium frames / shutters with necessary fixtures, fittings etc complete	Sqm	15.00	1613.23	24198.45
67	Providing and applying <b>plastering</b> on RCC/brick masonry work with 12 mm thick cement mortar (1:4) including curing etc; all complete as directed.	Sqm	35.00	202.46	7086.10
68	Providing and applying 20 mm thick <b>waterproof cement plaster</b> (1:4) in two coats for external surface mixed with approved waterproofing material as per manufacturer specification, curing etc; upto 10m height etc. all complete as directed.	Sqm	490.00	294.48	144295.20
69	Providing & Applying two coats of <b>plastic emulsion paint</b> of approved brand and manufacture & approved shade to give an even finish on existing painted internal surfaces including removing existing paint by scrapping, sand	Sqm	190.00	106.14	20166.60



	papering and preparing the surface smooth including necessary repairs to scratches incl. scaffolding with the help of brush, Rollers etc. complete as directed.				
70	Finishing walls with <b>Premium Acrylic Smooth exterior</b> paint with Silicone additives of required shade New work (Two or more coats applied @ 1.43 ltr/ 10 sqm. over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm).	Sqm	730.00	118.45	86468.50
71	Providing and erecting <b>bamboo's double scaffolding</b> of required height and width and strength by sides of building for platform to enable workmen to carry out repairs to building at any level from ground to any floor height as directed including removing the same and clearing the site.	Sqm	450.00	70.49	31720.50
72	Providing & laying <b>Plain Cement concrete (PCC) including</b> curing but excluding the cost of centering & shuttering etc;complete as directed..				
	(1:1.5:3) Concrete (1 Cement:: 1.5 coarse aggregate: 3 graded stone aggregate 20mm nominal size)	Cum.	6.00	6998.69	41992.14
73	Raising or lowering man-holes/ water gullies or chambers including dismantling/ building up brick masonry/ concrete including removing and re-fixing frame and cover etc. complete as directed.	Each	2.00	1113.86	2227.72
74	Providing and fixing steel work welded in built up sections/ framed work including cutting hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc as required-- <b>in gratings, frames, guard bar, ladders, railings, brackets, gates and similar works</b>	kg	700.00	113.84	79688.00
75	Providing and fixing Plain Coloured Fibre Glass corrugated roof sheet 2mm thick for weather shed 0.75 wide using 40mm X 40mm X 5mm M.S. Angle as brackets and purlin of size 25mm X 25mm X 5mm with painting and cement vata etc. complete.	Rm	54.00	1601.06	86457.24

76	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)- 32 mm size , DSR 2013 -item No. 18.17.2	No	10.00	658.51	6585.10
77	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)- 50 mm size , DSR 2013 -item No. 18.17.4	No	3.00	986.29	2958.87
			<b>Total of Civil Works</b>		<b>2633091.85</b>
<b>B. Electrical Works</b>					
78	Supplying and erecting double pole metal /iron clad switch with H.C. type fuse and neutral link 250V, 32A on iron frame/board as per specification No. SW-SWR/MDP	AU	3	916.88	2750.64
79	Supplying, erecting & terminating PVC armoured cable 3 core 4 sq mm copper conductor continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/CU	M	150	247.91	37186.5
<b>MAIN DB</b>					
80	Supplying and erecting single pole and neutral distribution board (SPNDB) surface/flush mounted with 2 ways for incoming and 4 ways for outgoing SPMCBs on iron frame/wooden board, as per specification no. SWSWR/ MCBDB	AU	1	781.65	781.65
<b>INCOMER</b>					
81	Providing, erecting & commissioning RCCB only of electro magnetic type with 30/100/300 mA sensitivity and having capacity of 16/25 A. 2 pole complete as per specification No. SW-RCCB/RCCB	AU	1	2167.73	2167.73
<b>OUTGOING</b>					
82	Supplying, erecting & marking SPMCB 6A to 32A, B- series (for lighting) in provided distribution board as per specification No. SW-SWR/MCB	AU	4	165.96	663.84
83	Supplying, erecting & marking SPMCB 6A to 32A, C-series (for motor/power) in provided distribution board as per specification No. SW-SWR/MCB	AU	2	177.22	354.44
84	Supplying , erecting & Terminating PVC armoured cable 3 core 2.5 sq mm copper conductor continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands	M	150	182.35	27352.5

	& lugs, on wall/ trusses/pole or laid in provided trench/pipe as per specification no. CB-LT/CU Note:1) Rate of all cables includes cost of lugs, glands, etc. required for erection and connection of cable.				
	<b>LIGHTING FIXTURES</b>				
85	Supplying & erecting ready to use T8 retrofit LED 22 W tube light with heat sink, integrated HF electronic driver & Compatible with existing T8 (36W) / T12 (40W) luminaire by removing starter & ballast and with warranty of free replacement for min 3 years.	AU	18	1007.37	18132.66
86	Supplying and erecting approved make white stove enamelled / powder coated CRCA sheet not less than 0.7 mm thick chalk board type fluo.fitting of 1 xT8 36/40 W.with 40 W Electronic Ballast having pf > 0.90 fixed at ceiling or on wall as per specification no. FG-IDF/CBF	AU	18	929.17	16725.06
87	Supplying and erecting double suspension pipe rod of 16 gauge 20mm.dia H.G.conduit duly threaded and painted with two coats of enamel paint for erection of fluo tube light fitting with necessary check nuts and shielded copper flexible wire twin core of 24/.2 mm for connecting leads (for measurements half of the actual length both pipes used)	AU	36	153.66	5531.76
88	Supplying and erecting ball suspension plate cast aluminum erected with spring on wooden block in position.	AU	36	28.68	1032.48
89	Supplying and erecting luminaries suitable for CFL 1 X 9 to 11 W with electronic ballast fixed on wall / above mirror as per specification no.FG-IDF/ML1	AU	9	331.92	2987.28
	<b>FANS</b>				
90	Supplying and erecting fresh air cum Exhaust fan of light duty 250 V A.C. 50 cycles 300mm. 1400 RPM rust proof body & blades, wire mesh, duly erected in an approved manner and marking Sr. No. and date of erection.	AU	15	1375.83	20637.45
	<b>POINT WIRING</b>				
91	Point wiring in PVC trunking	P	49	311.43	15260.07

	(casing-capping) with 1.0 sq.mm FR grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW				
92	Wiring for plug on board with Switch socket with copper wiring and earthing as per specification No:WG-PW/SW	P	6	90.15	540.9
	<b>SWITCH &amp; SWITCH SOCKET</b>				
93	Supplying and erecting modular type switch 6A / 10A ISI mark approved make duly erected on provided plate and box with wiring connections complete.	AU	6	88.1	528.6
94	Supplying and erecting modular type switch 16A ISI mark approved make duly erected on provided plate and box with wiring connections complete.	AU	3	124.98	374.94
95	Supplying and erecting modular type 3 pin 6A multi socket with safety shutter ISI mark approved make duly erected on provided plate and box with wiring connections complete.	AU	6	102.44	614.64
96	Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter ISI mark approved make duly erected on provided plate and box with wiring connections complete.	AU	3	160.83	482.49
97	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 6 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	AU	6	354.45	2126.7
98	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 3 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background in an approved manner.	AU	3	230.5	691.5
	<b>WIRES</b>				
99	Supplying & erecting mains with 2x2.5 sq.mm F.R copper PVC insulated wire laid in provided conduit/trunking/ inside pole/Bus	M	90	53.2713	4794.42

	bars or any other places. as per specification No: WG-MA/BW				
100	Supplying & erecting mains with 2x4 sq.mm F.R copper PVC insulated wire laid in provided conduit/trunking/ inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	M	90	75.8092	6822.83
	Note:- 1) Double the rate of two wire bunch for calculating rate of four wire bunch up to 10 sq mm 2) Continuous running earth wire should be provided of min. 1.5 sq. mm. up to phase wire of 2.5 sq. mm. And further earth wire of half of the size of phase wire is to be used only for light & power load . 3) Rates for the earth wire shall be calculated as one half rate of mains of bunch of two wire and earth wire should be with green colour PVC. 4) For all types of wiring stranded copper wires shall be invariably used.				
	<b>CONDUIT</b>				
101	Supplying and erecting PVC trunking (PVC casing-ncapping) of size 20 mm with accessories on wall/ceiling as per specification No: WG-MA/CON, para no. 1.1.2	M	150	33.8	5070
102	Supplying and erecting UPVC reinforced flexible conduit 20 mm in dia. conforming to I.S. and approved make with required number of couplings, PVC bushes, check nuts etc. complete.	M	30	80.93	2427.9
103	Supplying & erecting I.S.I. mark Rigid P.V.C. conduit 20 mm. dia. with necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC, para no. 1.2.1	M	60	95.27	5716.2
	<b>DISMANTLING</b>				
104	Dismantling the existing light, fan, bell, clock, independent plug point, wiring with mains of all types alongwith accessories etc.Complete as per specification No: WGPW/DM Note:1) The rates for item no 500 to 504 are for dismantling and handing over to section office inclusive of transportation upto 25	AU	35	6.14	214.9

	km, between site and section office.				
105	Dismantling of existing fluorescent fittings of any type & size. Note: 1) The rates for item no 500 to 504 are for dismantling and handing over to section office inclusive of transportation upto 25 km, between site and section office.	AU	20	10.24	204.8
106	Dismantling the existing ceiling fan/exhaust fan/cabin fan/bracket fan complete with accessories, G.I. down rod, frame etc. and making the site clear. Note: 1) The rates for item no 500 to 504 are for dismantling and handing over to section office inclusive of transportation upto 25 km, between site and section office.	AU	15	24.58	368.7
107	Dismantling the existing cables of all types & size upto 10 Sq.mm.	M	150	10.24	1536
		<b>Total of Electrical Works</b>			<b>184079.58</b>
		<b>Total Estimated Cost of Civil &amp; Electrical Work</b>			<b>2817171.43</b>