

MUNICIPAL CORPORATION OF GREATER MUMBAI			
Proposed MCGM General Hospital and Staff Quarters, Village Chandivali, Sangharsha Nagar, Kurla, Mumbai, 400072			
HOSPITAL CIVIL WORK - SUMMARY			
SR. NO.	SECTION	DESCRIPTION	AMOUNT
1	A	EARTH WORK	2,19,82,010.00
2	B	RCC WORK	22,60,45,014.00
3	C	MASONARY WORK	10,29,20,704.00
4	D	PLASTER WORK	5,54,53,960.00
5	E	PAINTING WORK	4,12,23,451.00
6	F	FLOORING WORK	18,06,58,585.00
7	G	FALSE CEILING WORK	6,05,43,738.00
8	H	WATERPROOFING WORK	19,20,62,479.00
9	I	DOORS & WINDOWS	24,29,60,933.00
10	J	FAÇADE WORK	34,72,900.00
11	K	STEEL WORK	1,87,46,430.00

12	L	STRUCTURAL STEEL WORK	1,05,35,35,702.00
12	M	PARTITION WORK	29,96,396.00
13	N	MISCELLANEOUS	27,90,230.00
14	O	CRASH GUARD,CORNER GUARD,CURTAINS	1,77,98,645.00
15	P	PLUMBING	6,45,64,467.00
		TOTAL COST FOR HOSPITAL CIVIL WORK	2,28,77,55,644.00
		TOTAL COST FOR RESIDENTIAL CIVIL WORK	56,20,03,949.00
		FINAL COST FOR CIVIL, ARCITECT & PLUMBING	2,84,97,59,593.00

MUNICIPAL CORPORATION OF GREATER MUMBAI						
Proposed MCGM General Hospital and Staff Quarters,						
CIVIL BOQ FOR HOSPITAL BUILDING						
Sr.No	ITEM NO.	DESCRIPTION	QTY	UNIT	Rate	Amount
SECTION - 'A' EARTHWORK						
1	R2-RW-7-22	Cutting down of various dia ----- tree above 300mm. Upto 450mm.	10	Nos	5997	59,970.00
2	R2-RW-7-19	Transplantation of existing trees of girth of all dia. Including uprooting & shifting of the tree & placing in pits of suitable size after transplanting, removal of excavated earth to desired location / filling the pit with Red earth, manure watering etc complete. With all leads,lifts including maintenance for three years the items also includes back filling of the trench taken for exposing the roots systems of the trees etc complete.	12	Nos	5526	66,312.00
3	R2-CS-EW-1	Excavation for foundations, substructures, basements, tanks, sumps, walls,chambers, manholes, trenches, poles, pits & general building works in all types of soils, vegetable earth, soft murum , running sand, shingle, turf clay, loam,peat, ash, shale, slag, chalk, garbage, muddy/ marshy/ slushy soil, marine clay, reclaimed land etc. for depths/lifts upto 1.5M measured from the ground level,including dressing/ trimming the sides, leveling and ramming of bottoms,manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering,consolidating, compacting to achieve not less than 97% Modified Proctor density conforming to relevant IS, stacking the selected material in measurable heaps for future use within owners space or disposing within an initial lead of 150m as directed, loading, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer-in-Charge.	8888	Cum	307	27,28,573.00
4	R2-CS-EW-2-a	Extra over above item CS-EW-1 for lift from 1.5m to 3.0m.	8888	Cum	71	6,31,039.00
5	R2-CS-EW-2-b	Extra over above item CS-EW-1 for lift from 3.0m to 4.5m	8587	Cum	106	9,10,223.00

6	R2-CS-EW-2-c	Extra over above item CS-EW-1 for lift from 4.5m to 6.0m	572	Cum	171	97,881.00
7	R2-CS-EW-2-d	Extra over above item CS-EW-1 for lift from 6.0m to 7.5m	490	Cum	236	1,15,640.00
8	R2-CS-EW-2-e	Extra over above item CS-EW-1 for lift from 7.5m to 9.0m	50	Cum	301	15,050.00
9	R2-CS-EW-2-f	Extra over above item CS-EW-1 for lift from 9.0m to 10.5m	50	Cum	365	18,250.00
10	R2-CS-EW-2-g	Extra over above item CS-EW-1 for lift from 10.5m to 12.0m	30	Cum	430	12,900.00
11	R2-CS-EW-2-h	Extra over above item CS-EW-1 for lift from 12.0m to 13.5m	10	Cum	495	4,950.00
12	R2-CS-EW-3	Excavation for foundation, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits & general building works in soft/disintegrated rock , sand stone, stiff clay, gravel, cobblestone, hard laterite, water bound macadam, wet mix macadam, asphalt mix carpet of any type, pitching, soling, paths and hardcore, lime concrete, plain cement concrete, stone masonry and all types of brick/ block masonry below ground level, rock boulders, etc. for depths/ lifts upto 1.5M measured from the ground level, including dressing/ trimming the sides, leveling of bottoms, manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less than 97% Modified Proctor density conforming to relevant IS, stacking in measurable heaps for future use within owners space or disposing within an initial lead of 150m as	2290	Cum	500	11,44,969.00
13	R2-CS-EW-7- a	Extra over the items CS-EW-03 to CS- EW-06 for lift from 1.5m to 3.0m.	7730	Cum	127	9,81,710.00
14	R2-CS-EW-7- b	Extra over the items CS-EW-03 to CS- EW-06 for lift from 3m to 4.5m.	7470	Cum	227	16,95,690.00
15	R2-CS-EW-7-c	Extra over the items CS-EW-03 to CS- EW-06 for lift from 4.5m to 6.0m	2290	Cum	327	7,48,830.00
16	R2-CS-EW-7- d	Extra over the items CS-EW-03 to CS- EW-06 for lift from 6.0m to 7.5m.	6762	Cum	427	28,87,374.00
17	R2-CS-EW-7-e	Extra over the items CS-EW-03 to CS-EW-06 for lift from 7.5m to 9.0m.	50	Cum	528	26,400.00
18	R2-CS-EW-7-f	Extra over the items CS-EW-03 to CS-EW-06 for lift from 9.0m to 10.5m.	50	Cum	628	31,400.00
19	R2-CS-EW-7-g	Extra over the items CS-EW-03 to CS-EW-06 for lift from 10.5m to 12.0m.	30	Cum	728	21,840.00
20	R2-CS-EW-7-h	Extra over the items CS-EW-03 to CS-EW-06 for lift from 12.0m to 13.5m.	10	Cum	828	8,280.00

		NOTE: Item includes Excavation with Mechanical machinery also Includes dewatering by pumps. No separate payment for dewatering shall be allowed.				
21	R2-CS-EW-4	Excavation by chiseling by manual operations, pneumatic breaker, hammer,drilling, compressor breaker,jack hammer etc. for foundations, substructures,basements, tanks, sumps, walls, chambers, manholes, poles, pits & general building works in hard rock , reinforced concrete, Bituminous macadam for depths/lifts upto 1.5M, including dressing/trimming the sides, leveling of bottoms, manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less than 97% Modified Proctor density conforming to relevant IS, stacking in measurable heaps for future use within owners space or disposing within an initial lead of 150m as directed, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer-in-Charge, loading. Note: 1)The rate includes the handling/supporting the existing	50	Cum	1054	52,700.00
		3) No separate payment for manual or mechanical dewatering will be paid. Contractor should consider this cost while quoting the rate. 4) If MCGM requires these material then Contractor should provide the same at his own cost in MCGM limit. No separate payment for this will be made.				

22	R2-CS-EW- 11	<p>Filling in plinth, floors, trenches, pits with approved excavated materials, murum / good earth in layers not exceeding 200mm including breaking of clods, watering, consolidating each layer in filled up area by rolling and compacting with roller/ plate compactor as required to achieve not less than 97% modified proctor density conforming to relevant IS etc. complete as directed by Engineer In charge. Note: 1) The rate includes the royalty and other taxes if any.</p>	759	Cum	183	1,38,982.00
23	R2-CS-EW- 12	<p>Filling in plinth, floors, trenches, pits with approved contractor's murum in layers not exceeding 200mm including breaking of clods, watering, consolidating each layer in filled up area by rolling and compacting with roller/ plate compactor as required to achieve not less than 97% modified proctor density conforming o relevant IS etc. complete as directed by Engineer In charge. The rate includes necessary soil testing charges at laboratory & field as per relevant I.S. codes, royalty, octroi and other taxes if any. (Note: Borrow areas selected by CONTRACTOR shall be got approved from Engineer In Charge, before executing the work) 1) The rate includes the royalty and other taxes if any.</p>	2462	Cum	1244	30,62,728.00
		ANTI TERMITE TREATMENT				

24	R2-CS-AT-1	Providing Pre-constructural anti-termite treatment conforming to IS- 6313 (part II) using chloropyrifos EC 20 Emulsion or equivalent of 1% concentration by weight for creating barrier under and all around foundation pits, wall trenches, basement excavation, backfill in immediate contact with foundation and treating the top surface of plinth filling, junction of wall & floor, along the external perimeter of building, expansion joints, surrounding of pipes, water conduits and at places suggested and as directed by Engineer-In-Charge covering 10 years guaranty. (plinth	4000	Sqm	159	6,36,000.00
25	R2-CS-EW-26	Providing & Laying dry stone Rubble Soling with average 230mm size hard stone setin regular lines,hand packed and interstices thoroughly filled with small chips including filling in with good quality murum brought from outside ,compacting with iron rammers, watering,sand sprNoding 12mm thk.layer of grit on topetc complete as directed by Engineer In Charge.(Note: The rate includes the royalty and other taxes if any)	2,637.53	Cmt	2,231.00	58,84,319.00
		TOTAL FOR EARTHWORK				2,19,82,010.00
		SECTION -'B' RCC WORK				
		Plain Cement Concrete RMC				

26	R2-CS-CW-2-a-2	Providing and laying in position ready mixed plain cement concrete , using fly ash and cement content as per approved design mix from Engineer-in-charge and fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS 456 and uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456-2000 in the items of ready mixed concrete and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer,manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, including the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, M-15 grade plain cement concrete (cement content considered @ 240 kg/cum).	797.96	Cum	6,764.00	53,97,396.00
27	R2-CS-CW- 62	Providing & Laying Plum concrete consisting of 80% P.C.C. mix (1:3:6) and 20% Rubble stone of maximum size of 150 mm laid in layers with ramming consolidating,watering including dewatering cost,seigniorage & conveyance of all materials,labour charges,machine mixing,finishing the surface etc. complete.	25.00	Cum	5,901.00	1,47,525.00
		RCC RMC Concrete				
28	R2-CS-CW-24	Providing and laying C.C. floor of mix M-20 with ready mixed concrete from RMC. The ready mixed concrete shall be laid and vibrated with a poker vibrator 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. The channel shuttering spaced 4m apart shall be included in this item.)	515	Cum	7132	36,73,833.00

29	R2-CS-CW-7-a	Providing and laying in position ready mixed design mix M-20 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying and the cost of centering, shuttering, finishing and excluding reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. The Mix design as per particular specifications shall be got approved by Engineer-in-Charge before execution of the item. The rate shall include cost of all specified materials and operations at all levels and heights, including the cost of centering, shuttering and and excluding reinforcement which shall be paid under relevant item. (Note :- Cement content considered in this item is @ 300 kg/cum as per IS 456 table showing minimum cement content. No extra will be paid nor any amount will recovered on account of variation of cement in mix design as per specifications for controlled concrete). All works (including Centering & Shuttering) Foundations, footings, bases of columns, rafts, pilecap	3,495.00	Cum	7,515.00	2,62,64,925.00
30	R2-CS-CW-7-b	Walls (any thickness) including attached buttresses, ,retaining wall, shear wall, diaphragm wall , trench,pit walls, etc	1,247.00	Cum	10,518.00	1,31,15,946.00
31	R2-CS-CW-7-c	Slabs, Suspended floors, roofs, landings, balconies, canopy and access platform	5,690.00	Cum	11,790.00	6,70,85,100.00
32	R2-CS-CW-7-d	Lintels, beams, plinth beams, girders, floor beam, coping.	162.00	Cum	9,556.00	15,48,072.00
33	R2-CS-CW-7-e	Columns, Pillars, Piers, Posts and Stru	828.00	Cum	11,184.00	92,60,352.00
34	R2-CS-CW-7-f	Stairs (waist slab), folded slab, inclined slab	30.00	Cum	11,059.00	3,31,770.00
35	R2-CS-CW-7-i	cantilever beam, etc., including edges.	358.00	Cum	12,329.00	44,13,782.00
36	R2-CS-CW- 18	Extra and over for providing richer RMC of M-35 grade cement concrete instead of M20 (Note :- Cement content considered in this item is @ 350 kg/cum as per IS 456 table showing minimum cement content.)	11,329.00	Cum	798.00	90,40,542.00

37	R2-CS-CW- 19	Extra and over for providing richer RMC of M-40 grade cement concrete instead of M20 (Note :- Cement content considered in this item is @ 360 kg/cum as per IS 456 table showing minimum cement content.)	451.00	Cum	1,064.00	4,79,864.00
38	R2-CS-CW- 35-e	Providing and fixing in position steel bars reinforcement of various diameters for R.C.C. pile, pile caps, footings,raft,retaining wall,shear wall, lift wall,foundations, slabs, beams, columns, canopies,staircases, newels, chajjas, lintels, pardies,coping, fins, arches, etc. as per detailed designs,drawings and bar bending schedules,including straightening, cutting, bending Corrosion Resistant Steel (500 CRS D)	1,035.58	MT	82,356.00	8,52,85,907.00
TOTAL OF SECTION 'B'						22,60,45,014.00
SECTION - 'C' MASONRY WORK						
39	R2-CS-CS-MW-16-a	Brick work with clay flyash F.P.S. (non modular) brick of class designation 3.5 and above in superstructure above plinth level up to floor five level in Cement mortar 1:4 (1 cement : 4 coarse sand)	150.00	Cum	6,511.00	9,76,650.00
40	R2-CS-MW- 33	Providing and laying autoclaved aerated (cellular) cement blocks masonry with more than 100 mm thick AAC blocks in cement mortar 1:4 (1 cement : 4 coarse sand) including RCC stiffeners.The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work, racking of joints,scaffolding and curing,etc. completed as directed by Engineer-in-Charge.	11,490.00	Cum	6,911.00	7,94,07,390.00
41	R2-CS-MW-6	Extra for brick work / AAC block masonry / Tile brick masonry in superstructure all level, for each four floors or part thereof by mechanical means.	9,112.78	Cum	394.00	35,90,437.00
42	R2-CS-MW-30-a	Providing and fixing dry cladding upto 10 metre heights with 30 mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately). Red sand stone	100	Sqm	5618	5,61,800.00

43	R2-CS-MW-30-b	Providing and fixing dry cladding upto 10 metre heights with 30 mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately). White sand stone	2539.64	Sqm	6027	1,53,06,387.00
44	R2-CS-MW-31	Providing and fixing structural steel frame(for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per architectural drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of M.S. brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by gineerin-charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the tractor to the Engineer-in-charge for approval before excution). The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid).	2539.64	Kg	144	3,65,708.00
45	R2-CS-MW-32	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	10158.54	NOS	267	27,12,332.00
		TOTAL FOR MASONARY WORK				10,29,20,704.00
		SECTION - 'D' PLASTERING				

46	R2-CS-PL-05	Providing and applying 12 mm thick internal plaster in cement mortar 1:3 with neeru finish at all heights and locations in one coat for masonry (except stone masonry) and concrete surfaces including racking out joints, hacking of concrete surface, watering, finishing, curing, scaffolding etc. complete.	95,670.00	Sqm	361	3,45,36,870.00
47	R2-CS-PL-13	Providing and applying 13 mm thick internal plaster in gypsum (Stuccoplaster) of approved make with neat smooth finish at all heights and locations for masonry (except stone masonry) and concrete surfaces including scaffolding, hacking of concrete surface, finishing etc. complete as per manufacturers specifications and as directed by Engineer In Charge.	2000	Sqm	376	7,52,000.00
48	R2-CS-PL-21	Providing and applying 25 mm thick external plaster with sea gravel finish upto 10m from ground level and at all locations in cement mortar 1:3 in two coats for masonry (except stone masonry) and concrete surfaces as directed including, providing water proofing compound to the first coat of plaster as per manufacturers specification, racking out joints, hacking of concrete surface, finishing, curing, scaffolding etc complete as directed By Engineer In Charge. Min. time lag between two coats shall be 24 hours.(as per IS 2402 of 1963.)	1496	Sqm	380	5,68,480.00
49	R2-CS-PL-25	Extra for every additional height of 3 m or part thereof above 10m from ground level for all types of external plastering.	97904.00	Sqm	55	53,84,720.00
50	R2-CS-PL-35	Extra for providing and mixing polypropylene fibers in mortar of internal and external plaster. The dose of 6mm long fibers shall be 125gms per 50 kg of cement bag or as per the manufactures specifications etc complete as directed by Engineer In Charge	47650.00	Kg	65	30,97,250.00
		Ceiling Plaster				

51	R2-CS-PL-02	Providing and applying 6 mm thick internal ceiling plaster in cement mortar 1:3 with neeru finish at all heights and locations in single coat for concrete surfaces including scaffolding, hacking of concrete surface, watering, finishing, curing etc. complete.	3,740.00	Sqm	313	11,70,620.00
52	R2-CS-PL-43	Providing and applying Plaster of Paris punning to walls, beams, ceilings, columns in perfect line and level over the base of single coat cement plaster including roughening of existing surface making 6 mm groove at skirting and door, window jamb, sill, lintel, etc. complete. The rate is exclusive of base coat cement plaster.	2,000.00	Sqm	298	5,96,000.00
53	R2-CS-PL-34	Providing & Fixing bird wired mesh/wired fabric (12.5mm x 24 SWG) in strips of 200 mm width or as required over junctions of concrete & brick / block masonry or any other specified location at all heights including minimum 200mm overlap at all joints / junction prior to plastering, drilling, nailing etc. complete as directed By Engineer In Charge.	34,820.00	Sqm	248	86,35,360.00
54	R2-CS-PL-30	Extra for 12 to 20mm wide and 6 to 12mm in depth forming groove in 20 to 25 mm thick plaster including scaffolding, finishing, curing etc complete as directed By Engineer In Charge.	13705.00	Rmt	52	7,12,660.00
TOTAL PLASTER WORK						5,54,53,960.00
Note : Rates of all the items in painting are inclusive of staging or scaffolding wherever necessary for any height.						
SECTION - 'E' PAINTING WORKS						
55	R2-CS-PN-1	Providing and applying three coats of White/colour wash to any surface with lime wash prepared from quick lime of best quality by adding blue/colour pigments and glue of approved colour, quality in required quantities at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting with broom, coir and sand paper if necessary or by any other approved means etc. complete as directed by Engineer-in-charge.	21,976.11	Sqm	46.00	10,10,902.00

56	R2-CS-PN-3	Providing and applying first single coat of approved primer and two coats of acrylic distemper (oil bound distemper) of an approved make and colour as per manufacturers specifications to any surface, at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting with broom by any approved means, etc. complete as directed by Engineer-in- charge.	15,400.00	Sqm	98.00	15,09,200.00
57	R2-CS-PN-5	Providing and applying first single coat of approved primer and two coats of acrylic plastic emulsion paint of an approved make and colour as per manufacturers specifications to any surface, at all height and locations as directed including scaffolding, cleaning and preparing surfaces for painting by any approved means etc. complete as directed by Engineer-in- charge.	72,581.64	Sqm	126.00	91,45,287.00
58	R2-CS-PL-44	Providing & applying synthetic plaster " Renova " in metallic finish in 4 coats , base coat to be applied using trowel and the remaining three coats to be applied by brush as per manufacturer specifications on backing coat of 16mm cement plaster (16 mm cement plaster will be paid under separate item) including cost & conveyance of all materials, labour charges, preparing the surface, scaffolding etc. complete all as directed by Engineer - in - Charge.	12716.746	Sqm	2099	2,66,92,450.00
		NOTE:- BIDDERS SHOULD NOTE THAT FOR THE ITEM OF RENOVA TREATMENT FOR 10 YEARS GUARANTEE SHOULD BE SUBMITTED ON STAMP PAPER OF RS. 200/- IN THE PRESCRIBED FORMAT. IN CASE OF PEELING/DEBONDING OR DECOLOURING DURING THIS PERIOD.CONTRACTOR SHOULD MAKE GOOD THE TREATMENT WITHOUT ANY ADDITIONAL COST TO MCGM				-
59	R2-CS-PN-15	Extra over item no. CS-PL-7 to CS-PL- 12 on exterior painting work of height more than 10 m from ground level for additional height of 3m or part thereof.	97904	Sqm	19	18,60,176.00

60	R2-CS-PN-24	Providing and laying 2mm thick antifungal self levelling Epoxy flooring on concrete substrate including coving at floor wall junction & including necessary surface preparation using cleaning, dedusting, applying suitable primer including Aisle or zone marking in different colours etc. complete as per manufacturers specifications and as directed by Engineer In Charge.	890	Sqm	1086	9,66,540.00
61	R2-CS-PN-25	Providing and applying antifungal self leveling 3mm EPU system including coving at floor wall junction, necessary surface preparation by cleaning and de-dusting. The System shall be executed in three stages, firstly by applying a solvent free epoxy primer which has a volumetric ratio of mixing @ 200 microns dft, then laying 1.8mm self leveling epoxy based screed and finally applying a solvent free EPU (epoxy-polyurethane), self leveling coating to yield a dft of 1000 microns. The EPU coating shall be a two component with volumetric ratio of mixing. No fillers shall be added at the site while laying the self leveling EPU including Aisle or zone marking in different colours etc. complete as per manufacturers specifications and as directed & approved by Engineer In-Charge.	28.6	Sqm	1360	38,896.00
TOTAL SECTION OF 'E'					TOTAL	4,12,23,451.00
SECTION - 'F' FLOORING						
		NOTE:- The bedding mortar thickness varies from 20 mm to 35 mm. Contractor should make note & quote their rates/percentage accordingly. Nothing extra shall be paid on this account.				
62	R2-CS-FL-01-c	Providing and laying polished natural stone as specified below (Machine cut) of an approved quality and size for paving /flooring in plain and/or diamond/approved pattern including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float,machine cutting, dressing, leveling, jointing, filling the joints with neat cement slurry or with required pigment, machine polishing at site, curing, finishing,etc complete as directed by Engineer In Charge . 25 to 30 mm thk. Kota stone of size 0.430m x0.56m(17"*22")	15,182.00	Sqm	1179	1,78,99,578.00

		NOTE:- In the above item joint filling should be carried out with colour pigment cement to match the colour of flooring.				-
63	R2-CS-FL-78	Providing and laying 20-25mm average thick granite stone laid with knife edge joints over c.m. bedding of 1:6, for flooring / skirting / dado , with cement float and grout of same colour of the stone. The granite flooring shall be mirror polished. Basic rate to be considered @ Rs.2000/- per sq.m. for cut size.	6,763.00	Sqm	4,259.00	2,88,03,617.00
64	R2-CS-FL-21-d	Providing and fixing polished natural stone tiles /slab as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in porportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, 15 to 20mm thk. Kota stone for height upto 150 mm	4,204.00	Rmt	234.00	9,83,736.00
65	R2-CS-FL-79	Providing & fixing 20 +/-2 mm thick machine cut mirror polish 1st quality Granite riser 150mm ht. for staircase (black galaxy or approved) polished,including backing coat of 1:4 cement plaster/mortar/cement paste , cleaning etc. complete as per Architects details drawingand design(Basic rate of granite is Rs.220/-Sq.ft.)	1,050.00	Rmt	831.00	8,72,550.00
66	R2-CS-FL-38-d	Providing and fixing polished natural stone slab as specified below of approved quality, pattern and colour for treads including preparing the surface and levelling in the desired line, in cement mortar 1:4,cement float, machine cutting, leveling, jointing,smooth cement plastering along the sides to match the existing surface in cement mortar 1:3, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.Kota stone for width upto 300 mm	2,800.00	Rmt	664.00	18,59,200.00

67	R2-CS-FL-80	Providing&fixing 20+/- 2 mm thick machine cut mirror polish 1st quality Granite treads 300mm wide for staircase (black galaxy or approved) including grooves and edge moulding & polishing with backing coat of 1:4 cement plaster/mortar/cement paste, cleaning etc. complete as per Architects details drawing and design (Basic rate of granite is Rs.220/-Sq.ft.)	309.00	Rmt	1,934.00	5,97,606.00
68	R2-CS-FL-9-c	Providing and laying 800 x 800 x 10 mm thk. vitrified tiles as specified below conforming to I.S.15622-2006 with water absorption less than 0.08% for flooring of an approved, quality, make, pattern and size for flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, cutting, leveling, jointing, filling the joints by neat cement slurry or approved colour grout, curing, finishing etc complete as directed by Engineer In Charge .Light coloured antiskid / matt vitrified	18,566.02	Sqm	1,762.00	3,27,13,328.00
69	R2-CS-FL-81	Providing & fixing skirting of Vitrified mirror finish size of 100x10mm thick (Nitco,Euro,Bell)of approved make & shade and pattern for flooring in required position laid on CM: 1:4 including neat cement slurry,filling joints with colour pigments of matching shade, curingand cleaning etc.complete.	4,204.30	Rmt	265.00	11,14,141.00
70	R2-CS-FL-82	Providing & fixing Vitrified tile dado for toilet of size 600x300x10mm thick (Nitco,Euro,Bell) of approved make & shade in required position including backing coat plaster in CM:1:4 including neat cement paste curing,filling the joints with white cement & colour pigmentto match the shade of cladding and cleaning etc.complete. (Basic rate of Vitrifide tile Rs.800/-per Sq.M)	19,066.00	Sqm	1,991.00	3,79,60,406.00
71	R2-CS-FL-13-a	Providing and laying Indian patent stone flooring 40 mm thick with M-15 grade concrete using 6 mm to 20 mm metal over bedding laid in proper grade and slope or over the slab, including compaction, marking lines, to give appearance of tiles as per the approved pattern, finishing smooth with cement slurry as mentioned below, curing etc. complete. In plain natural/ grey colours.	2,786.00	Sqm	437.00	12,17,482.00

72	R2-CS-FL-07-c	Providing and laying 8mm thk. ceramic tiles as specified below conforming to I.S.15622-2006 for flooring of an approved, quality, make, size and pattern /design, for flooring including cement mortar bedding of 25 mm thick in 1:4 proportion, neat cement float, cutting, leveling, jointing, filling the joints by neat cement slurry or approved colour grout,curing, finishing etc complete as directed by Engineer In Charge.Light coloured antiskid / matt ceramic	2,095.00	Sqm	1,701.00	35,63,595.00
73	R2-CS-FL-32-a	Providing and fixing 8 mm thk. ceramic tiles as specified below conforming to I.S. 15622-2006 of approved quality, pattern and colour for dado in the wet area including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in porportion 1:3 with approved waterproofing compound, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement slurry or approved colour grout, finishing, curing etc complete as directed by Engineer Light coloured glazed ceramic tiles	12,675.00	Sqm	1,770.00	2,24,34,750.00
74	R2-CS-FL-83	Providing&fixing in position 20 +/- 2mm thick machine cut, mirrorpolished, 1st quality granite cladding such as black galaxy or approved equivalent in lift lobby / passage installed in approved pattern and design of size 600 x 1200mm and as directed including backingcoat of 1:4 cement plaster of required thickness with stainless steelfasteners cleats etc. The joint between the granite slabs to be filled white cement mixed with with matching pigments. The rate toinclude all curing, polishing at all lift and levels. (Basic rate ofgranite is Rs.185/-Sq.ft.)	1,872.00	Sqm	4,430.00	82,92,960.00

75	R2-CS-FL-40-k	Providing and fixing polished natural stone tiles as specified below of approved quality,pattern and colour for sill and jambs including preparing the surface and levelling in the desired line,cement mortar1:3 bedding or backing, cement float,machine cutting, leveling, jointing, smooth cement plastering along the sides to match the existing surface in cement mortar1:3,filling the joints with neat cement or pigment mixed with cement,finishing,curing etc complete as directed by Engineer In Charge. 18mm thk. Steel gray Granite slab for width upto 150mm	9,500.00	Rmt	377.00	35,81,500.00
76	R2-CS-FL-84	Providing & fixing 20+2mm thick machine cut mirror polish 1st quality Granite window sill (black galaxy or approved shade) including edge polishing, backing coat of 1:4 cement plaster / mortar/cement paste , cleaning etc. complete as per Architects details drawing and design. (Basic rate of granite is Rs.185/- Sq.ft.)(window sills & jambs)	4970.62	Rmt	1,590.00	79,03,289.00
		NOTE: The window sills shall be laid in stepped manner with extenal sill level lower than internal sill level. However No separate payment shall be considered for stepped sill laying.				-
77	R2-CS-FL-93	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete. (Basic Rate 210/Sft.)	38.40	Sqm	5,344.00	2,05,210.00

78	R2-CS-FL-85	Providing & Fixing Approved colour Homogeneous Flooring 2 mm thick of Single layered Flexible Vinyl flooring (spica of Tusker vinyl floorings) in roll form over provided I.P.S. flooring,fixing over I.P.S./ Kota stone flooring with approved adhesive, all joints to be soldered by P.V.C. rods as per manufacturers specifications,etc. complete as directed including proper levels & cleaning. (Roll width minimum 2.0 Mtr., weight of P.V.C. flooring 90 kg./ 30 Sq.M. The I.P.S./ Kota stone shall be paid separately.	657.80	Sqm	1,323.00	8,70,270.00
79	R2-CS-FL-86	Providing & Fixing Approved colour 1mm thick of Homogeneous wall covering capila of Tusker vinyl) in roll form over wall with approved adhesive all joints to be filled by PVC soldering rods as per manufacturers specifications etc complete & as directed by the Engineering-In-Charge	71.00	Sqm	936.00	66,456.00
80	R2-CS-FL-88	TELEPHONE BLACK GRANITE WASH HAND BASIN COUNTER : Providing and making wash basin counter in single piece of 18 mm to 20 mm thk. Telephone Black granite 600 mm side fixed over 25 to 40 mm thk. Black Cuddappa, stand with type construction,by making zari, in walls upto 75 mm deep & fitting the wall surface by C.M. 1:2 with necessary moulding,profile cutting in granite and cudappa including making hole to receive pillar cock for wash basin etc complete and as per detailed drawing,as directed by the Engineer-In Charge.	150.00	Rmt	9,056.00	13,58,400.00

81	R2-CS-FL-46-c	Providing and constructing raised platform of 750 mm wide and 600 to 750mm high using minimum 40mm thick polished kadappa stone slab base with minimum 15mm thk. polished stone top as specified below of approved quality, colour and texture, supported by both side polished, 40mm thk. and minimum 700mm wide kadappa spaced at not more than 1200mm clear, including polished facia of min.100mm height as specified below with chamfered/ rounded at the top edges, jointing in approved adhesives, machine cutting, making opening for sink and fixing the same in position, leveling, smooth cement plastering along the sides to match the existing surface in cement mortar, filling the joints with pigment mixed with cement, cleaning, finishing, curing etc complete as directed by Engineer Ruby red / jet black / Hasan green Granite slab at top and facia.	975.30	Rmt	3,949.00	38,51,460.00
82	R2-CS-FL-89	ACCESS FLOORING -Providing & fixing anti-static flooring at server room with pedestal supports &	105.00	Sqm	3,934.00	4,13,070.00
83	R2-CS-FL-50	Providing and fixing 20mm to 25 mm thk. polished jet black granite stone plaque for inauguration of approved quality including preparing the surface and levelling in the desired line, cement float, machine cutting, leveling, jointing, filling the joints with neat cement, finishing, curing etc	5.00	Sqm	3,636.00	18,180.00
84	R2-CS-FL-51-a	Engraving the letters of sizes specified below in golden or any other approved colour on granite stone etc. complete as directed by Engineer In Charge. Letters upto 30mm in any language as directed.	100.00	Nos	33.00	3,300.00
85	R2-CS-FL-51-b	Letters above 30mm and upto 50mm in any language as directed.	100.00	Nos	39.00	3,900.00
86	R2-CS-FL-51-c	Border line upto 12mm thk.	5.00	Rmt	224.00	1,120.00
87	R2-CS-FL-57	Rounding the edge in half round shape of the stonework specified below including high gloss machine polishing as directed by Engineer In Charge. Shahbad stone/ Kadappa stone/ Tandur stone/ Kota stone/ Any type of marble/ Any type of Granite stone	7200.00	Rmt	204.00	14,68,800.00

88	R2-CS-FL-58	Champhering the edge of the stone work specified below including high gloss machine polishing as directed by Engineer In Charge. Shahbad stone/ Kadappa stone/ Tandur stone/ Kota stone/ Any type of marble/ Any type of Granite stone	4865.00	Rmt	76.00	3,69,740.00
89	R2-CS-FL-59	2 to 3mm wide and 3mm deep grooving on the stone work specified below as directed by Engineer In Charge. Shahbad stone/ Kadappa stone/ Tandur stone/ Kota stone/ Any type of marble/ Any type of Granite stone	12,876	Rmt	47.00	6,05,175.00
90	R2-CS-FL-61	Providing and making wash basin counter in single piece of 18 mm to 20 mm thk. telephone black granite 600mm wide, fixed over 25 to 40 mm thk black Kadappa, sandwich type construction, by making zari, in walls upto 75 mm deep & fitting the wash basin by using M.S. bracket & filling the wall surface by C.M 1:3 etc.(M.S. bracket and wash basin will be paid seperately)	546	Rmt	2911	15,89,406.00
91	R2-CS-FL-50	Providing and fixing 20mm to 25 mm thk. polished jet black granite stone plaque for inauguration of approved quality including preparing the surface and levelling in the desired line, cement float, machine cutting, leveling, jointing, filling the joints with neat cement, finishing, curing etc complete as directed by Engineer In Charge	10	Sqm	3636	36,360.00
TOTAL FOR SECTION G						18,06,58,585.00
SECTION -FALSE CEILING WORKS						

92	R2-CS-PL-45	<p>P&F in position Gypsum board false ceiling with 12.5mm th. Gypsum boards, screwed/ fixed to the under struct of suspended G.I. Grid const & suspended from the main ceiling of ceiling sectn at max c to c distance of 450 mm perimeter channel and intermediate channels at max c to c distance 1200 mm galvanised grid should be fixed to RF CC slab.The gypsum board should be fixed to galvanised iron grid with necessary screws.The boards should be taped and filled from underside to give smooth, seamless ceiling.The rate should include necessary additional ceiling sections and intermediate channels to be provided at openings for light fixtures, asbestos cement ducts, vertical drops, offsets etc. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 mm item to be comp in all respect.(G.I. perimeter channel size- 27mmx0.5mm thk.,flange-20mm &30mm,intermediate channel. size-</p>	757	Sqm	839.00	6,35,123.00
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93	R2-CS-WW-21-a	<p>Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge. Providing & Fixing With Armstrong Orca Lay in metal ceiling system consisting of 600x600mm Lay in tiles of precoated galvanised steel in 0.5/0.4mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tiles should have black acoustic fleece with NRC of 0.70 & CAC 36 with lifetime warranty against aging in module size 595mm X 595mm at required height above FFL.</p>	29452	Sqm	1894	5,57,82,088.00
94	R2-CS-PL-46	<p>Providing and Fixing Modular False Ceiling of " Armstrong /M/s Hunter Douglas India/USG" make by using 600 x 600 x 15 mm thick prima fine fissured microlook mineral fibre ceiling tiles on superfine 15 mm Tee grid system suspended with the help of 2 mm prestrained G.I. wire, etc. complete. As per Architect's Detailed Drawing & Design as directed by Engineer In Charge.</p>	2517	SQM	1211	30,48,087.00

95	KSS-MOT-03	SITC OF Pre-Fab Ceiling: Stainless steel Grade 304 panel : The Pre-fabricated modular construction is designed and constructed for exact size, easy field installation and future disassembly, enlargement, or relocation. The operating room ceiling will be constructed from Pre-fabricated Panel of 1.2 mm or more thick Stainless Steel Grade 304 sheets, with a 12 mm thick backing of gypsum board. Suitable grid structure suspended from the ceiling slab should be provided to support the ceiling panels to the required height, and also provide for easy routing of electrical conduits, gas pipelines and bio air-conditioning ducts.	215	SQM	5016	10,78,440.00
TOTAL FALSE CEILING						6,05,43,738.00
SECTION - 'H' WATERPROOFING						
96	Fair Item	Surface preparation for waterproofing work				
		All surface area should be cleaned up to visible of hair cracks / aggregate texture. Cleaning of RCC member should be done by hacking tool, wire brush, wire grinder & air blower etc. Open minor cracks & construction joints should be sealed with cement mortar with additive. All clean & treated area should be tested for water tightness by flooding water. All wet spots & water leakage area should be marked for treatment.	2,363	Sq.m	137	3,23,796.00
97	Fair Item	i) Making the grooves of size 15 mm x 15 mm along the line of construction joints. ii) Drilling holes in concrete upto 75 mm depth at regular intervals of approx. 1.0 Mtr. c/c Cleaning the surface of construction joints with clean water. iii) Providing and fixing PVC grouting socket of 20mm dia and sealing the periphery of sockets by providing and laying waterproof mortar in ratio of 1:4 admixed with Waterproofing Compound @ 150 ml per bag of cement . And filling the grooves by providing and laying polymer mortar properly, curing etc. complete. iv) Carrying out grouting with cement slurry grout admixed with expandable grout additives Non shrink W/P compound @ 125 ml per cement bag of 50 kg additives to full saturation of grout etc. Complete.	474.00	No	445	2,10,930.00
96	Fair Item	Under Raft Slab & Confined Retaining Wall				

		Fully Bonded Sheet Membrane : application below raft and footings & Grade slab				
		Waterproofing of Under Raft Slab /Base Slab : Supplying & installing Colphene BSW / URDIN FBM / Elotene 4500 or approved equivalent by the Design Engineer, positive side waterproofing treatment for “Raft Slab/Base Slab” as per manufacturers specification by using minimum 4.5mm thick , Pre applied, flexible, fully bonded sheet membrane before casting of the base RCC slab. Fully bonded sheet membrane does not require dry PCC/blinding concrete and can be installed on wet/damp PCC as long as PCC is free from ponded water. Fully bonded sheet membrane should have sufficient high puncture resistance of >1210 N (as per ASTM E154) & does not require protection screed protection also & steel reinforcement can be laid directly over the robust membrane allowing faster construction.	5263.00	Sqm	2673	1,40,67,999.00
97	Fair Item	Retaining Wall (Unconfined) - External Side				
		A) Providing and applying Vandex BB 75 / Blue Dex or approved equivalent waterproofing system in two coats @ 4 kg / sqm by trowelling method by Design Engineer. The 1st coat shall be applied to the prepared surface. Whilst the 1st coat is still “green” a second coat comprising of slurry coatings shall be applied with a stiff masonry brush or stiff broom and worked into every irregularity on the surface shall be done by means of trowelling or by spray only. Treatment to shall be carried out by trowel application using a steel trowel into hardened concrete slab surface including curing, cleaning etc complete as per manufacturers specifications. B) Providing & laying high density polyethylene (HDPE) dimpled protection and drainage sheet; over the waterproofing membrane on the retaining walls. The protection and drainage sheet shall consist of dimpled HDPE sheet; confirming to EN 13252, Compressive resistance 150 kPa, short width tensile strength MD/CMD - > 200 N/50mm, elongation at max load MD/CMD - > 20%, etc. complete as per manufacturer specifications. The thickness of the boards shall be 7-8 mm.	2,363	Sqm	2,296	54,26,537.00
98	Fair Item	UG /STP, Lift pit & OH Tanks internal waterproofing				

		Providing and applying Vandex BB 75 / Ecorender Plus or approved equivalent waterproofing system in two coats @ 3 kg / sqm by trowelling method by Design Engineer. The 1st coat shall be applied to the prepared surface. Whilst the 1st coat is still "green" a second coat comprising of slurry coatings shall be applied with a stiff masonry brush or stiff broom and worked into every irregularity on the surface shall be done by means of trowelling or by spray only. Treatment to shall be carried out by trowel application using a steel trowel into hardened concrete slab surface including curing, cleaning etc complete as per manufacturers specifications.	1532.00	Sq.m	2022	30,97,704.00
99	Fair Item	UG /STP & OH Tanks internal waterproofing				
		Sealing/Packing joints in Outlets Pipes: (Considered upto 150mm dia) - Sealing / packing all joints of outlet pipes, etc. with a non-shrink cementitious grout or microconcrete and topping it with waterproofing membrane including providing necessary formwork for packing the bore & applying a bonding coat to enhance adhesion between the packing material and other surfaces.	20.00	No	960	19,200.00
100	Fair Item	Additional treatment fot STP				
		Providing and applying 2 component Smart Care coal tar epoxy / R 816 CE / TIKI CTE or approved equivalent by Design Engineer which is a two component, coating with percentage solids more than 80%, excellent resistance to effluents, Elongation of >30 as per ASTM D 638, Tensile strength > 3Mpa as per ASTM D 638, Shore A hardness of > 60 as per ASTM D 2240 and an adhesion pull off of >4 Mpa as per ASTM D 4541. 2K coal Tar epoxy has an excellent resistance to micro organsims and effluents. The consumption shall be 4-5 sqm/litre., all complete as per manufacturers specifications.	577.00	Sqm	1268	7,31,636.00
101	Fair Item	Ramp Waterproofing				
		A)Providing & applying High Performance, Odourless , moisture tolerant car parking flooring system based on XolutecTM technology consisting of Scratch coat and Body coat of minimum	229	SQ. MT.	5,277	12,08,433.00
102	Fair Item	Toilet, KITCHEN, and Pantry waterproofing (Sunken)				
		Flooring & WALLS				
		All surface area should cleaned up to visible of hair cracks / aggregate texture. Cleaning of RCC member should be done by	6,217.00	SQ. MT.	1,680	1,04,44,560.00

103	Fair Item	Providing & laying of avg. 10-12mm thick, CM 1:4 protective screed admixed with Conplast WL or equivalent Integral waterproofing compound of approved make as per manufacturers specification.	5,952.00	SQ. MT.	617	36,72,384.00
104	Fair Item	Toilet, KITCHEN, and Pantry waterproofing (Sunken) & Terrace / LMR / Staircase & OHT Top Waterproofing over Structural Steel				
		Supply and installing of coving bandage strip (sealing tape) at junction of horizontal & vertical surface.	2,200.00	RMT	480	10,56,000.00
105	Fair Item	Toilet, and Pantry waterproofing (Sunken)				
		Sunken Portion:- Providing and laying brick bat waterproofing treatment to deck slab of 400mm sunk. The slab shall be laid over with well burnt brick bats coba laid & joints filled in with cement mortar 1:4 in true lines & levels gradient with minimum 50mm at outlet / nahani trap (for easy flow of water/rain water). Finally the top surface of brick bat coba shall be laid over and joints finished with 20mm waterproofing layer with CM 1:4 and admixture finished rough to receive further finishes. The treated surface after 12 to 15 hrs. shall be kept ponded for continuous period of 10 days to detect any seepage/ leakage/ dampness if any, the surface then shall be cleaned.	276.00	CUM	13,020	35,93,520.00
		Treatment for Core Cutout Area (Upto 150mm dia) IN KITCHEN & Toilet area				
106	Fair Item	Grouting & Sealing around the periphery joints of pipes passing through on the floor & walls by filling B30 / Powergrout microconcrete in the gap between the cut cuts in the slab & the pipe surface.	1,664.00	KG.	137	2,27,968.00
107	Fair Item	Collar Treatment providing and fixing drain collar of required size around the pipe sandwiched with waterproofing membrane.	832.00	NOS.	480	3,99,360.00
108	Fair Item	Threshold For Toilets Providing and making barrier bund in micro concrete at door sill outside wet areas. (100MM X 25 MM)	368.00	RMT.	788	2,89,984.00
109	Fair Item	Providing & laying of avg. 25mm thick, CM 1:4 protective screed admixed with Conplast WL or equivalent Integral waterproofing compound of approved make as per manufacturers specification.	265.00	SQM	754	1,99,810.00
110	Fair Item	Terrace / LMR / Staircase & OHT Top Waterproofing over Structural Steel				

111	Fair Item	Surface Preparations: First Part Cleaning of Deck slab to ensure there is no sharp objects or protrusions over the membrane. To be handed over after removing all scaffolding and other material at site , removing of muck etc.	5,418.00	SQM	206	11,16,108.00
112	Fair Item	Providing and applying " Blueshield PMB / Masterseal M 860 / Bluesil 580 " two component hybrid polyurea polyurethane waterproofing liquid membrane over uniform surface of slab to achieve the required minimum DFT of 2.5 mm and minimum consumption of 4 kg/sqm. It shall have following minimum properties: a) Shore A hardness - 60 b) Tensile Strength - > 8 Mpa c) Elongation - > 500% d) Chemical Resistance - Excellent shall be applied as per manufacturer specification.	5,418.00	SQM	5,208	2,82,16,939.00
113	Fair Item	Providing & laying of protective Geotextile fabric 120GSM over the entire membrane with proper overlaps.	10,836.00	SQM.	171	18,52,956.00

114	Fair Item	<p>Supply and laying of modified polyolefin TPO synthetic membrane of 1.2mm obtained by coextrusion reinforced by a polyester mesh. Membrane to have top white colour and a high solar reflection index (SRI) of 99. Furthermore the membrane to have a very high resistance to weather agents and UV rays. TPO membrane shall be asbestos free, and should exceed /meet specifications of EN 13956:2012. Flagon TPO Roof Membrane is a modified polyolefin membrane that accepts roof movement and thermal shock. It should be mechanically fixed to the substrate by independent plates and screws. It is necessary to fix around the perimeter with a pre-drilled flagon bar. The bar can be mechanically fixed on the horizontal or vertical surface at the base of the upstand on the perimeter of the roof. Flagon TPO Roof Membrane should be lapped and seamed using hot air heat welding equipment. Control tests of the welds with Welding tester, and test of triple points with vacuum cap. TPO membrane shall be asbestos free, and should have CE marking. Flagon Energy Plus EP/PR TPO membrane shall have following minimum properties , (i) Thickness : 1.2 mm as per EN 1849-2, (ii) Tensile Strength > 1100 N/5 cm as per EN 12311-2 (iii) Elongation of > 15 % as per en 12311-2 (iv) Tear Strength ≥ 300 N/mm as per EN 12310-2, and Cold bending of minimum ≤ -40 deg as per EN 495-5 (v) Fire classification – Class E as per En 13501-1 & EN ISO 11925-2, (vi) Static Puncture Resistance - ≥ 20 kg as per EN 12730.</p> <p>Approved makes - Flagon EP/PR / BMI Everguard TPO / Sikaplan TPO</p>	5,418.00	SQM	2,741	1,48,50,736.00
115	Fair Item	<p>Termination of TPO Membrane: Waterproofing shall be taken minimum 300mm above FFL. Fully adhered to walls with adhesive approved by manufacturer and Terminated with aluminium strip & sealed with PU adhesive.</p>	858.00	RMT.	1,508	12,93,864.00

116	R2-CS-WP-24	Waterproofing the terrace slabs with average 100 mm thick, brick bats laid in cement mortar bed 1:4 filled with mortar 1:4 of total thickness 100 mm, laid to slope (1:100) with vata 15 cm, at the junction of walls and IPS flooring (1:2:3) 40 mm thick with admixture, of approved water proofing compound, as per manufacturers specification laid after grouting the slab, finishing curing etc. complete as directed and specified. (Horizontal measurement clear between walls will be paid for).Do with broken China mosaic flooring instead of IPS set in cement mortar (1:4) 40 mm thick.	5,418.00	SQM	1,187	64,31,165.00
117	R2-CS-WP-31	Extra for providing additional thickness of brickbats over 100 mm in 1:5 c.s. either due to location of rain water pipes or due to increase in the travel length of flow of rain water or brick bats required in the sunk portion of baths, W.C.s nahani etc. The rate includes for fixing brickbats in C.M., with waterproofing compound as per specification as directed.	542.00	Cum	8,575	46,47,650.00
		Epoxy Grout				
118	R2-CS-RM-107	njecting approved low viscous epoxy grout into concrete slab, stone masonry cracks, columns etc. by suitable gun/ pump (using Araldite GY-257 & Aradur -21 in 1:0.21 prop.) at required pressures by providing necessary scaffolding, drilling and inserting 12mm dia.Brass grouting multiperforated nipples upto 30mm to 40mm depth, using M Seal,Quartz sand around the nipple, cutting of nipples after curing, cleaning etc. complete. (This item shall be paid on actual consumption of epoxy used in Kgs.)Epoxy injection grout in between baseplate & pedestal / concrete/RCC work of approved make	50	kg	170	8,500.00
119	Fair ITEM	100% Slab Area				
		All surface area should cleaned up to visible of hair cracks / aggregate texture. Cleaning of RCC member should be done by hacking tool, wire brush, wire grinder & air blower etc. Open minor cracks & construction joints should be sealed with cement mortar with additive. All clean & treated area should tested for water tighness by flooding water. All wet spots & water leakage area should mark for treatment.				

		<p>Providing and applying proprietary 100% water based elastomeric Polyisoprene membrane waterproofing with minimum elongation 400% UV Resistance with one coat of primer in dilution followed by three coats of polyisoprene Membrane Blue Deck / Formak 629 waterproofing membrane (1.8 Kgs/Sqm) sandwiched with one layer of fibremesh or equivalent waterproofing system. Membrane should have following minimum properties:</p> <p>i) Solid % Vol: 68.03% (ASTM G 53) ii) Tensile Strength: 2.5N/mm² (ASTM D412 - 2006a) iii) Elongation : 400% (ASTM D412 - 2006a) iv) Shore A Hardness - 53 (ASTM D2240-05) v) UV Resistance - Excellent (ASTM C-822) shall be applied as per manufacture specification.</p>	44,605	Sqm	1234	5,50,42,570.00
		<p>Providing & laying of avg. 25mm thick, CM 1:4 protective screed admixed with Conplast WL or equivalent Integral waterproofing compound of approved make as per manufacturers specification.</p>	44,605	Sqm	754	3,36,32,170.00
		TOTAL FOR SECTION H			TOTAL	19,20,62,479.00
		SECTION - 'I' DOORS & WINDOWS				
120	R2-CS-WW- 32	<p>Providing & fixing in position 35 mm thick 1st quality water proof Single Leaf Flush Door for w.c. with 1.5mm thick laminate on both sides with 12x35 mm lipping patti on all egdes. Rate is inclusive of s.s.fixtures & fittings, such as handles on both sides, tower bolts, locking arrangement,, door stopper of make (ozone,Hettich,Hafle) 450 x 150mm aluminum ventilation grill powder coated, as per architect's detailed drg.and design complete.Door D6, D10 & D11</p>	657.00	Sqm	10,533.00	69,20,181.00

121	R2-CS-WW- 33	Providing and fixing in position, Double leaf flush door of required size including providing & fixing T.W. frame 60mm x 150mm., 45mm thick solid code hard wood block board shutters with 25mm x 45mm lipping patti, allround the shutter & finished with 1mm thick approved textured laminates on either sides, finishing all exposed surfaces of wood with approved shade french polish, treating all the surfaces of wood in contact with masonry with tar paint (Black Japan), chrominum plated brass fittings & fastenings, S.S.	2961.11	Sqm	14,117.00	4,18,02,026.00
122	R2-CS-WW- 45	Providing & fixing in position single leaf flush door of required size for internal doors of residential units, shutters made of 45mm thick marine grade block board core with 25mm x 45mm T.W. lipping patti, 1mm thick approved decorative laminates finish on both faces of shutter, including providing & fixing T.W. frame of 60mm x 150mm size, coating all the exposed surfaces of wood with 2 coats of flat enamel paint of approved shade & make over one coat of approved synthetic primer, coating all the surfaces of wood in contact with masonry with Tar (Black Japan), preparing the surfaces, providing and fixing brass chrome finished or S.S. fittings and fastenings etc complete as per detailed drawing no. WD-26 & as directed by the Engineer in charge. D5,D7,D9,GL-D5	131.40	Sqm	17,263.00	22,68,359.00
123	R2-CS-WW- 39	Frame Type F2 Providing and fixing 1st quality Burma T.W. door frame of size 75 x 150mm with required groove and chamfer including M.S. hold-fast of size and make. Door Type D5-ED as per architect's detailed drg. And design and as instructed by the Engineer-in-charge. D6,D10,D11 & GL-D9	7,656.30	Rmt	4,711.00	3,60,68,830.00
124	R2-CS-WW- 40	VIEWING GLASS 5MM AT DOORS WITH BEADING	141.19	Sqm	3,425.00	4,83,583.00
125	R2-CS-HW- 21	Providing and fixing concealed door closers as per the company specification and Architect instructions	798.00	Nos	5,992.00	47,81,616.00

126	R2-CS-RM- 137	Providing & Fixing frosted film manufactured by 3 M on glass partition wherever required as per the instruction of Architect.	105.00	Sqm	1,478.00	1,55,190.00
127	R2-CS-RM- 123	P/F 1.50mm thick SS 304 kick plates to all surface in approved design with ss screws /araldite with buffing etc. complete	8962.80	Sqm	7,034.00	6,30,44,336.00
128	R2-CS-WW- 11	Providing and fixing 38 mm x 12mm thick teak wood decorative cover moulding around frame of doors, windows and cupboards etc. completed as directed. (ARCHITRAVE)	6,189.40	Rmt	142.00	8,78,895.00
		Fire rated Single leaf Door - Laminate Finish: Providing & Fixing of Wooden Fire door without Panic Bar of approved make and of required size, 120 minutes fire rating, integrity and insulation in accordance with the criteria of BS 476 ; Part 22 : 1987 and report 212 (1)/FR/2003; Insulation on door leaf only. Tested at Fire Research Laboratory, Central Building Research Institute, Roorkee with standard heating conditions as specified in IS : 3809-1979 and BS				

129	R2-CS-WW- 47	<p>: 476 part 20 & 22, 1987 to achieve the required integrity & insulation (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140 degree Centigrade above the ambient(Imported) to take care of Hot and cold smoke of size 10mm x 2mm x 2Nos. Concealed in the grove of the frame and 55mm thick single leaf shutter made out of perimeter railing of Red Mirranti wood of size 100mm x 29mm and promina 60.9mm thick Calcium Silicate Board Fire Retardant compound on each side coated with Intumescent sealant and faced with 4mm thick marine ply with Fire and smoke Intumescent Seal of size 20mm x 2mm x 1 No., mounted in the grooves in the shutter on all sides except bottom with 10mm thick Hardwood beading on all side. The Fire Doors with frame will be as per IS: 3614 part 2 and BS: 476 part 20 at FRL CBRI Roorkee with standard heating conditions as specified in IS: 3809 - 1979 and BS: 476 part 20 & 22 1987. The door shall be finished with 1 mm thick fire retardent laminate on both side etc. all</p>	328.5	Sqm	20295	66,66,908.00
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130	R2-CS-WW- 37	<p>Fire rated Double leaf Door - Laminate Finish: Providing & Fixing of wooden Fire door with Panic Bar of approved make and of required size, 120 minutes fire rating, integrity and insulation in accordance with the criteria of BS 476: Part22: 1987 and Report 212(1)/FR/2003; insulation on door leaf only. Tested at Fire Research Laboratory, Central Building Research Institute, Roorkee with standard heating conditions as specified in IS: 3809-1979 and BS: 476 part 20 & 22, 1987 to achieve the required integrity & insulation (i.e. to restrict the heat radiation, temperature rise on the non fire side to the maximum of 140 degree Centigrade above the ambient temperature on the unexposed surface of the shutter). Red Mirranti Hard wood frame of section 145mm x 70mm with Intumescent strip (Imported) to take care of Hot and cold smoke of size 10mm x 2mm x 2Nos. concealed in the groove of the</p>	1480.56	Sqm	15556	2,30,31,534.00
131	FA-BMH-21-02	Lead Lined doors - Painted				
	a	<p>Providing and fixing of hollow metal door at all levels from ISO 9001- 2015 certified manufacturer. All hollow metal general doors with or without vision panel. Pressed galvanised steel Single /Double leaf to required sizes of approved make Shakti Hormann or approved equivalent which consists of frame, shutter, infill and finish as detailed below and conforming to IS 277.</p>				
	b	<p>Door frame shall be double rebate profile of size 143 x 57mm made out of 1.6mm (14gauge) thick galvanized steel sheet. Frames shall be butted and field assembled with bolts. The inside face of the frame face trim to rebate height should be protected with 1.6mm thick lead line. All provision should be mortised, drilled and tapped for receiving appropriate hardware. Rubber door silencers should be provided on the strike jamb. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Once frame installed should be grouted with cement & sand slurry necessary for doors on the clear masonry opening.</p>				

	c	Door leaf shall be 48mm thick fully flush double skin door. Door leaf shall be manufactured from 1.2mm (18 gauge) thick galvanised steel sheet. The internal construction of the door should be rigid with lead line of 1.6mm thick all across the inside of the exposed surface. In addition the door should have steel channel reinforcement with a basic infill of honeycomb core. All doors should be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers as per ANSI Standard. The edges should be interlocked with lock seam. For pair of doors integrated astragals has to be provided on the meeting stile for both active and inactive leaf. Hardware shall be of approved make.				
	d	Vision panel of size 200 x 300mm to be provided. Lead line glass of 8.5mm with radiation shield shall be provided with beeding arrangement.				
	e	All doors and frames shall be finished Pure Polyester Powder coated and shall have passed minimum 500 hours of salt sprey test.				
	f	Rate should include supply and installation of door and hardware as a complete assembly as mentioned in the door and hardware schedule. The hollow section of the frame shall be filled with puff				
		Lead line Door Double leaf of size : 1800 x 2250 L-D2 (qty 06 Nos)with hardware set 10	22.50	Sqm	41,533.00	9,34,493.00
	2.00	HARDWARE				
	a	Hinges 3090, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SSS				
	b	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS				
	c	EP Half Cyl. 3010, 5pin one side key Length=42mm, SNP				
	d	Escutheions 6612 for Europrofile cylinder SSS				
	e	Pull handle D type TGDI 300mm, 22dia, SSS 304 (single side)				
	f	Push plate 0.8x150x400mm, with adhesive tape SS				

	g	Door closer TS 73V EN 2-4 with Std. arm				
	h	Door coordinator SR 390 surface mounted, Silver				
	i	Flush bolt concealed 3101, size 300mm, SSS - Dorma				
	j	Dust proof floor socket for flush bolt				
	k	Armour plate door width less 5mm x 900mm x 1.2mm in SSS 304				
132	FM-BMH-21-03	SS Door for CSSD				
		Providing and fixing of hollow metal door at all levels from ISO 9001- 2000 certified manufacturer. All hollow metal general doors with or without vision panel. Pressed Stainless steel Single /Double leaf to required sizes of approved make Shakti Hormann or approved equivalent which consists of frame, shutter, infill and finish as detailed below and conforming to IS 277.				
		Door frame shall be Single rebate profile of size 125 x 60mm made out of 1.60mm thick Stainless steel sheet (14 gauge). Frames should be mitered and field assembled with self tabs. All provision should be mortised, drilled and tapped for receiving appropriate hardware. Rubber door silencers should be provided on the striking jamb. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Once frame installed should be filled with PUF as recommended by the manufacturer of the engineer.				

		Door leaf should be 46mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 1.2mm (18 guage) thick Stainless steel sheet. The internal construction of the door should be rigid with steel stiffeners/pads and reinforcement. The infill material shall be resin bonded honeycomb core. All doors should be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. The edges should be interlocked with a bending radius of 1.4mm. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf. Vision lite wherever applicable should be Double side as per joinery details with a screw on glass bedding on the inside. The glass should be 5mm clear toughned glass.				
		All doors and frames shall be finished satin Stainless Steel.				
		Rate should include supply and installation of door and hardware as a complete assembly as mentioned in the door and hardware schedule. The hollow section of the frame shall be filled with puff D239				
		Multipurpose Door Single leaf of size Door DRSS1 Single leaf of size : 1250 x 2250mm (qty 05 nos)with vision panel 200 x 300mm with hardware set 1	23.63	Sqm	35,777.00	8,45,232.00
		HARDWARE				
	a	Hinges 3090, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SSS				
	b	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS				
	c	EP Cyl. 3225, 5pin both side key Length=65mm, SNP				
	d	Pull handle D type TGDI 300mm, b/b 22dia, in SSS 304				
	e	Door closer TS 73V EN 2-4 with Std. arm				
	f	Mop Plate 6" x 5mm less door width				
	g	Concealed auto door bottom 1105mm, Aluminium finish - Hormann				
	h	RB10 Flush Bolt L=300mm (2 Nos)				
	i	Dust proof floor socket for flush bolt (1 No)				
133	FM-BMH-21-04	SS Door For Kitchen				

		Providing and fixing of hollow metal door at all levels from ISO 9001- 2000 certified manufacturer. All hollow metal general doors with or without vision panel. Pressed Stainless steel Single /Double leaf to required sizes of approved make Shakti Hormann or approved equivalent which consists of frame, shutter, infill and finish as detailed below and conforming to IS 277.				
		Door frame shall be Single rebate profile of size 125 x 60mm made out of 1.60mm thick Stainless steel sheet (14 gauge). Frames should be mitered and field assembled with self tabs. All provision should be mortised, drilled and tapped for receiving appropriate hardware. Rubber door silencers should be provided on the striking jamb. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Once frame installed should be filled with PUF as recommended by the manufacturer of the engineer.				
		Door leaf should be 46mm thick fully flush double skin door with or without vision lite. Door leaf shall be manufactured from 1.2mm (18 gauge) thick Stainless steel sheet. The internal construction of the door should be rigid with steel stiffeners/ pads and reinforcement. The infill material shall be resin bonded honeycomb core. All doors should be factory prepped for receiving appropriate hardware and provided with necessary reinforcement for hinges, locks, and door closers. The edges should be interlocked with a bending radius of 1.4mm. For pair of doors astragals has to be provided on the meeting stile for both active and inactive leaf. Vision lite wherever applicable should be Double side as per joinery details with a screw on glass bedding on the inside. The glass should be 5mm clear toughned glass.				
		Multipurpose Door Double leaf of size Door DRSS2 Single leaf of size : 1750 x 2250mm (qty 05 nos)with vision panel 200 x 300mm with hardware set 2	22.00	Sqm	40,033.00	8,80,726.00
		HARDWARE				
	a	Hinges 3090, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SSS				
	b	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS				

	c	EP Cyl. 3225, 5pin both side key Length=65mm, SNP				
	d	Pull handle D type TGD I 300mm, b/b 22dia, in SSS 304				
	e	Door closer TS 73V EN 2-4 with Std. arm				
	f	Mop Plate 6" x 5mm less door width				
	g	Concealed auto door bottom 1105mm, Aluminium finish - Hormann				
	h	RB10 Flush Bolt L=300mm (2 Nos)				
	i	Dust proof floor socket for flush bolt (1 No)				
134	R2-CS-WW- 46	Providing & Fixing glazing panels & doors using 12mm thick toughened clear glass (confirming to ASTM Standards C-1048) Supported by C- channel (Embedded in the floor) at the bottom & side edge and wall connecting profile at the top edge, stainless steel articulated counter sunk bolts threaded bolts, chemical fasteners, etc. glass panel size as per design & drawing including & applying colourless sealant of joint including required edge polish, making glazing water tight etc. Destructive male joint test reports to be submitted forestablishing the safety factor. Including operating hardware. S.S. patch fittings, fabricated long length satin finish S.S. 304 handles, patchlock, floor springs etc. complete as directed by the architect for frameless patch doors, single or twin leaf shutters with fixed panel on top. Hardware - Dorma BTS 80 Floor spring Size 1800 x 2250 mm	15.75	Nos	11,733.00	1,84,795.00
		Multipurpose Door Double leaf of size Door DRSS2 Single leaf of size : 1750 x 2250mm (qty 05 nos) with vision panel 200 x 300mm with hardware set 2				
		HARDWARE				
	a	Hinges 3090, 5 Knl, 2 Ball bearing butt hinges size 4" x 3" x 3mm SSS				
	b	Mortice Dead lock 278, 55mm BS/20mm sq. fornd, SSS				
	c	EP Cyl. 3225, 5pin both side key Length=65mm, SNP				
	d	Pull handle D type TGD I 300mm, b/b 22dia, in SSS 304				

	e	Door closer TS 73V EN 2-4 with Std. arm				
	f	Mop Plate 6" x 5mm less door width				
	g	Providing and laying China Mosaic floor on top of waterproofing, including necessary bedding mortar in CM 1:3 in min thick 20 to 25mm with necessary slope, the selected multi colour chips shall be set and jointed in grey cement, curing, cleaning, as per detailed specification and all as directed at site finishing carefully etc. complete. Treatment shall be carried out upto 300 mm. over parapet etc. with vata as directed etc. complete. The treatment shall be tested for water tightness by impounding water for continuously for 7 days.				
	h	RB10 Flush Bolt L=300mm (2 Nos)				
	i	Dust proof floor socket for flush bolt(1 No)				
135	R2-CS-AW- 03	Providing and fixing in position four track aluminum window of extruded modular and anodized aluminum sections of approved make and of size 122.2 mm x 45.5 mm x 1.3 mm thk (wt 1.829 kg/Rm) for bottom and 122.2 mm x 31.75 mm x 1.2 mm thk. (wt 1.093 kg/Rm) for top and sides mounted on anodized aluminum rectangular frame of size 127mm x 25.4mm x 1.3mm(1.052 kg/m) The shutter comprising of bearing bottom and top of size 40mm x 18 mm x 1.25 mm thk (wt. 0.417 Kg/Rm) Interlocking section of size 40mm x 26.7 mm x 1.10 mm thk. (Wt. 0469 kg./Rm) and hand sides of 40mm x 18mm x 1.25 mm thk (wt. 0.417kg/Rm) with 5 mm thick plain / frosted / tinted glass fixed in shutter including approved quality neoprene gasket, fixtures, fastenings and accessories like PVC	268.90	Sqm	5,258.00	14,13,877.00

136	R2-CS-AW- 05	<p>Providing and fixing in position Top/side hung window of extruded modular and anodised aluminum sections of approved make and of size 38.10 mm x 25.40 mm x 1.44 mm thk (wt. 0.471 kg/Rm) for outer rectangular tube, 40 mm x 31.5 mm x 1.5 mm (wt. 0.549 kg/Rm) for outer frame, 40 mm x 31.50 mm x 1.50 mm thk (wt. 0.502 kg/Rm) for central mullion, 40 mm x 31.50 mm x 1.50 mm thk (wt. 0.549 kg/Rm) for shutter and 16.50 mm x 14.50 mm x 1.20 mm thk (wt. 0.157 kg/Rm) for glazing clip with 5 mm thick plain / frosted / tinted glass fixed in shutter including neoprene gasket, fixtures, fastenings and accessories like hinges, locking arrangement etc. complete as directed by Engineer In Charge. (Note: anodic film must not be less than 15 microns i.e. AC-15 as per IS, the anodizing must be scaleted by keeping the anodized section in boiling de-anodized water for a period of one hour)</p>	2688.88	Sqm	7,645.00	2,05,56,519.00
137	R2-CS-AW-15-a	<p>per IS, the anodising must be scaleted by keeping the anodized section in boiling deanodized water for a period of one hour) aluminum fixed/ sliding / pivoted / top hung / side hung / louvered type windows, doors, ventilators and partitions conforming to IS:1948, 1961 with hollow bottom section & standard single / two / three / four track frame section all round (top, bottom and sides) with shutter frame made up of standard handle section standard interlocking section and standard top and bottom section with infill panel of plain / frosted / tinted glass/ Novapan sheet / acrylic sheet / hardner laminated sheet as listed below with nylon guides, gliders glass fixing PVC weather strips, neoprene gasket, PVC weep holes etc complete with approved type of locking arrangement, handles and other fixtures including fixing, filling the gaps with silicon sealant, cleaning polishing the aluminium section with petrol and / or other agents as specified by the manufacturers etc. complete as directed by Engineer In Charge. Aluminum section used</p>	7941	kg	603	47,88,423.00

138	R2-CS-SL-12-a	Providing and Fixing MS Safety grill of weight specified below for windows as per design including fabricating the grill using M.S. square / round bar, flats and angles including painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour and brand etc complete as directed. a Grill weighing 10 to 15 kg / sqm	7941	Sqm	2021	1,60,48,761.00
139	R2-CS-AW- 16	Providing and fixing SS Mosquito mesh in anodised (anodic film must not be less than 15 microns i.e. AC- 15 as per IS, the anodising must be scaled by keeping the anodized section in boiling de-anodized water for a period of one hour) aluminium shutter fixed in sliding / openable / fixed windows conforming to IS:1948- 1961 as per drawing and directed by Engineer InCharge. (Note: For Aluminum Sections, total weight shall be upto 3.5 kg/sq.m.)	2,688.88	Sqm	1,453.00	39,06,949.00
140	R2-CS-WW- 23	Providing and fixing trap door in the Gypsum board / POP ceiling system for electrical and mechanical utilities with 18mm thk. plywood shutter and 12mm thk .teakwood lipping all around including wooden /G.I.frame with supports ,fixtures,f astenings	500.00	Sqm	6,440.00	32,20,000.00
141	R2-CS-HW- 13	Providing and fixing magnetic type floor door stopper of approved make including necessary screws, fixtures, materials and labour etc. complete.	550.00	Nos	84.00	46,200.00
142	R2-CS-PV-12	Design, fabrication & Installation of FRP LOUVERS with 30 mm clear space including aluminium EURO support system for accommodating FRP louvers consist of aluminium angle brackets of 50 x 50 x 5 mm with EPDM gaskets & anchor fastners (HILTY make) etc. Louvers as design including 60 mm x 30 mm section UPVC FINS & . as per Architect/Engineer incharge.	1500.00	Sqm	2689.00	40,33,500.00
TOTAL FOR I SECTION						24,29,60,933.00
SECTION - 'J' FAÇADE WORKS						

143	R2-CS-AW- 20	Design, supply, fabrication & erection of approved structural glazing using specially designed Vertical Mullion & Horizontal Transoms of Required size & as per architect's approved Grid work with aluminium rectangular sections to be fixed in masonry at interval of each floor on concrete slab with 80 mm x 100 mm x 5mm thick galvanized M & L angle fixed on wall side with raw bolt size of 10 mm x 90 mm with necessary bolts & washers / nuts for the plumb the line levels. the glass panel's shall be fixed on a specially designed architectural sub- frame using Dow Corning 995 structural sealant & GE Silicon (SSG - 4000) sub frame would be fixed on main frame grid in a manner that no aluminium frame is visible from outside & grooves between the glass panel shall be filled with weather sealant of Dow Corning 789 / GE Sil proof to make it air tight, water proof & dust free thus giving it a flush look outside. Glass will be of 6 mm thick Glaverbel	350.00	Sqm	4,942.00	17,29,700.00
144	R2-CS-AW- 21	oated aluminium composite panels of ALUCOBOND having 0.5 mm thick aluminium PVDF coated sheet available in standard colours + 3 mm core material + 0.5 mm aluminium sheet chemically treated (back sheet) bent as per requirement, fitted on anodised aluminium necessary coated rectangular grid work, hardware, fixtures, brackets, anchor, fasteners of S.S. 304 grade etc. complete duly sealed with weathering silicon manufactured by DOW Corning / G.E. silicon for circular columns and curved beams etc complete. All section for supporting ACP shall be of size 50 x 50 x 2.5 mm at a distance of 1.2 m Horizontally & Vertically or as per requirement of the design shop drawing has to be submitted by the contractor for the approval of structural Engineer. a) For Terrace b) For Entrance Canopy REBATE FOR SIZES Size :39"-Bruhan Mumbai Mahanagar Palika Shri Harilal	400.00	Sqm	4,358.00	17,43,200.00
TOTAL OF SECTION 'J'						34,72,900.00
		SECTION - 'K' STEEL WORK				

145	R2-CS-SL-12-c	Providing and Fixing MS Safety grill of weight specified below for windows as per design including fabricating the grill using M.S. square / round bar, flats and angles including painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour and brand etc complete as directed . Grill weighing 20 to 25 kg / sqm	2,340.00	Sqm	2,828.00	66,17,520.00
146	R2-CS-SL- 05	Providing and fixing rolling shutters made out of 18 gauge steel sheets for curtains, including bottom rail,100 mm wide guide channels for opening width up to 4.0m and 150mm wide guide channel for opening width more than 4.0m, lock plates, locking arrangement on both sides,fixing bolts, pulling handles, MS hood of appropriate size, rolling arrangement, standard make springs in brackets etc.including fixing of frames with rag bolts, grouting of parts in position etc. and also including two coats of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour, shade and brand etc. complete as per IS:6248 / specifications and as directed by Engineer In Charge. The shutter should withstand wind pressure of 47meters per second.	50.00	Sqm	3,534.00	1,76,700.00
147	R2-CS-SL-07	Extra for providing mechanical device for operating rolling shutters.	6.00	Nos	792.00	4,752.00

148	R2-CS-SS- 15	Providing, detailing, and fabricating as per specifications, transporting to site and erecting MS Openable / Sliding / Ornamental Entrance Gates including track and wheel, locking arrangement, fixing bolts, nuts,washers, cleats, stiffeners, gussets decorative balusters, arrow heads etc. and all necessary operations like straightening, bending, cutting,drilling, grinding, machining if specified, welding etc. complete weighing 25 to 30 kg/Sqm, including cleaning, Grinding and removing the welding burr and preparing surface and applying one coat of red oxide zinc chromate primer and one coat of Synthetic Enamel paint after fabrication and second coat of Synthetic Enamel paint after erection, with approved colour, shade and brand etc. including touching up with primer etc. complete as directed by Engineer In Charge.	51.00	Sqm	3,740.00	1,90,740.00
		NOTE:- Additional weight required for fabrication of gate beyond 30 kg/cm2 will be payable under structural steel item No. CS-SS-04 on Tonnage basis.				
149	R2-CS-SS- 31	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffering, protecting the railing members by means of wrappers during construction etc. complete as	1108.00	Rmt	3,394.00	37,60,552.00

150	R2-CS-SS- 32	Providing & fixing S.S. pipe hand rail along the wall in staircase or ramps or passages consisting of 50 mm dia. 18 gauge 304 grade stainless steel pipe. Supported with 25 mm 18 gauge S.S. pipe (304grade) brackets & 5mm thick tapered edge collar base plate fixed to wall with SS screws at approx. 600 mm center to center fixed horizontally or in inclined position at required height including grinding the welded joints, buffing,protecting the railing members by means of wrappers during construction etc. complete as per detailed	1032.00	Rmt	1,675.00	17,28,600.00
151	R2-CS-SL-04	Providing and fixing in position collapsible steel gates with vertical channels 20 x 10 x 2 mm & braced with flat iron diagonals 20 x 5 mm size, top & bottom T section 40 x 40 x 6 mm size, 30 mm steel pulleys complete with bolts-nuts, locking arrangements, stoppers, handles and painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint including all labour, materials, tools and equipments, etc complete as directed by Engineer Incharge.	50	Sqm	7,493.00	3,74,650.00
152	R2-CS-SL-08	Extra for providing grilled rolling shutters manufactured out of 8 mm dia. M.S. bar instead of laths as per design approved by Engineer-incharge. (area of grill to be measured).	48	Sqm	315	15,120.00
153	R2-CS-SL-09	Extra for Electrically operated (motorised) with switch & cable	4	Sqm	2375	9,500.00
154	R2-CS-SL-13	Providing and Fixing Decorative / Ornamental grills as per design for compound wall / Fencing including fabricating the grill using M.S. square / round bar, flats and angles including painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint of approved colour and brand etc. complete as directed.	3500	Kg	184	6,44,000.00

155	2-CS-SL-14-a	Providing, fabricating and fixing M.S. grill work as per approved design and as per weight specified below to fencing / compound made out of square / round bars, M.S. flats, angles, with necessary holdfast including painting with one coat of red oxide zinc chromate primer and two coats of approved synthetic enamel paint etc. complete as directed by Engineer In Charge. Mild steel grill of weight 10 to 15 Kg/sq. m.	2338	Sqm	2037	47,62,506.00
156	R2-CS-RW- 21	Providing and fixing polycarbonate multiple wall sheet roofing 16mm thick gauge of approved make UV coated of approved make and of approved colour and with aluminium framing for fixing polycarbonate sheet using pressure plates with EPDM gasket (compatible to polycarbonate) breather tape, screws and covering the pressure plates complete and making the entire system water tight by using sealant as per architectural drawings and specification.(Rate does not include cost of structural steel framing which will be paid seperately)	105.00	Smt	4,398.00	4,61,790.00
		TOTAL FOR K SECTION				1,87,46,430.00
R2-CS-SS		L -STRUCTURAL STEEL WORKS				
157	R2-CS-SS-02	Providing, detailing, fabricating and fixing built up sections at desired location using MS Plates of grade Fe 350 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), erecting structural steel members for all heights & at all levels including provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, gussets, base plate, and all necessary operations like preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr and preparing surface for painting with wire brush cleaning and applying two coats of epoxy red oxide zinc phosphate primer of 30 microns each and two coats of Epoxy Corrosion Resistant Enamel paint of 30 microns after fabrication including touching up with spray painting after erection etc complete as directed by Engineer In Charge.	688	MT	80216	5,51,88,608.00

158	Fair ITEM	Same as item No. 1 above using built up sections of Structural steel of grade 350	3901.00	MT	177000	69,04,77,000.00
159	R2-CS-SS-05	Providing and Fixing of Foundation Bolts and nuts in RCC column / pedestal / beam at any level including maintaining the accuracy towards line, level & position including making and using the template etc. complete as directed by Engineer In Charge. (Contractor will take due care for its threads and rusting by applying grease and cotton waste.	1.50	MT	271126	4,06,689.00
160	R2-CS-SS-08	Providing, detailing, fabricating and fixing at desired location using M.S. chequered Plates of any thickness and of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), including transportation of the same to site, erection at all heights and levels, provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, and all necessary operations like preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding, grinding and removing the welding burr and preparing surface for painting with wire brush cleaning and applying two coats of epoxy red oxide zinc phosphate primer of 30 microns each and two coats of Epoxy Corrosion Resistant Enamel paint of 30 microns after fabrication including touching up with spray painting after erection etc complete as directed by Engineer In Charge.	45.00	MT	83713	37,67,085.00
161	R2-CS-SS-23	Providing, detailing, and fabricating as per specifications, transporting to site and erecting ladder / railing using stainless steel hollow pipes of grade 304 including, S.S. fixtures and fastenings, cleats, stiffeners, gussets etc. and all necessary operations straightening, bending, like cutting, drilling, welding, grinding and removing the welding burr, machining if specified, finishing, cleaning etc. complete as directed by Engineer In Charge.	2500	Kg	707	17,67,500.00

162	R2-CS-SS-30-d	<p>Providing and fixing structural Profile decking sheet as per particular specification,with GI sheet, zinc coating not less than 275 GSM as per IS 277 and of yield strength 500 Mpa of approved make with specified Base Metal Thickness. The profile shall be structural decking profile having ribs & pitch as per the drawing referred with the embossments (shear groove) on top and side of the ribs for better composite action. The decking sheet shall be fabricated to required form as per the slab design and fixed with Galvanised Iron fasteners, self drilling screws, shear studs as per IS 1367, connectors etc. complete as per design, drawing and direction of Engineer-in-Charge. (Refer typical drwg).The sheet shall be filled with 75mm thick M25 grade concrete reinforced with 8mm dia. HYSD bars placed 150mm C/C both ways. Plan area of the sheeting shall be measured and paid. Structural steel frame work shall be paid seperately.</p> <p>With Base Metal Thickness (BMT) (excluding Zinc coat thickness) 1.00 mm thick Profile decking sheet .</p>	51213.30	Sqm	1720	8,80,86,876.00
163	Fair ITEM	Fire Protection using Cement based Spray Vermiculite for beam				

	<p>Supplying & installing of non-corrosive, Spray Applied Cementitious Fireproofing Vermiculite consisting of factory controlled premixed cement with minimum dry density of 350 kg/cum. Spray shall be done in one or more coats of approved make for two hour fire protection rating on Structural steel members/sections of different shapes and sizes at all locations. The coating should be asbestos free & non-gypsum based (gypsum based fire proofing material not acceptable). The thickness of fireproofing to be dependent on Hp/A or W/D or A/P as case may be & as calculated by manufacturer & approved by Engineer Incharge. Minimum thickness of fire protection coating to be applied on tructural steel of different shape and sizes shall be 17 mm and above irrespective of as calculated by manufacturer to achieve two hour fire protection and to withstand thermal shocks upto 550 Degree Centigrade .Structural steel surface members shall be manually cleaned by wire brush to ensure all it is tree of oil, grease, loose mill scale, dirt, dust or other materials that would imp to the surface before the pplication of the fire protection coating. The fire protection coating of specified thickness shall be achieved by applying the material to structural steel surface by spraying method after mixing the material in recommended quantity of water to achieve the targeted density. The material shall confirm to fire protection requirements of either UL 263 or ASTM E119 or EN. The contractor shall furnish test report from International Test Laboratory of material before execution of work. Item includes <u>cost of all tools, tackles, machineries; scaffolding, proper</u> Approved makes: Bovia 279 Soprema, M II of Isolatek Newkem, Monokote Z146 of Grace, P400 of Promat or equivalent. Minimum performance characteristics of materials shall be as under</p>	91785.54	Sqm	1713	15,72,28,625.00
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		Physical Properties Requirement Dry Density - 350 Kg/m ³ (minimum) ASTM E605 Bond Strength - >400 K Pa (minimum) ASTM E736 Air Erosion - 0.02 g/m ² (max ASTM E859) Compressive Strength - >1750 KPa (minimum) ASTM E761 Corrosion Does not promote corrosion of steel ASTM E937 Bond Impact - No cracking, spalling or delamination ASTM E760 Deflection - No cracking, spalling or delamination ASTM E759				
164	Fair ITEM	Fire Protection using Intumescent Paint.				
		Providing & applying Fire Proof Intumescent Paint System having Low VOC to structural steel work at all heights & levels including double scaffolding at all heights and applied in accordance to Manufacturer's Specifications & as directed by Engineer-In-Charge. 1) Surface Tolerant Epoxy Primer Anti-corrosive Primer typically a two component high build surface tolerant / self priming epoxy primer to 100 microns DFT and not exceeding 125 microns having minimum solid content of 70% 2) Water based Intumescent having 70% minimum Volume Solids and Thickness to achieve a 2 Hour Fire Rating in accordance with BS 476 Part 20/21/UL 263. The product packaging must bear a UL/Certifire marking & label (Product Name : Nullfire SA 801 / CAFCO WB3)				
		For Column	9178.55	Sqm	6168	5,66,13,319.00
		TOTAL FOR STRUCTURAL WORKS				1,05,35,35,702.00
		Section M-PARTITION				

165	R2-CS-RM- 125	<p>Providing & fixing FULL HEIGHT BOTH SIDE LAMINATED PARTITION at required location having height more than 2.8 meter & minimum 77 mm thick made by using 50 x 50 mm (finished size) approved quality seasoned TW section framing at 600 mm center to center,covered with 12 mm marine ply generally confirming to I.S.303 / I.S.710-1980 on both sides.The partitions shall be finished with 1.5 mm thk.approved quality laminate matt/suede/fine line finished lamination pattern with grooves on both sides with necessary lipping (BTC) moulding. Antitermite treatment to plywood and woodwork,door frame including all leads & lifts etc complete as per Architect's Drawing and instructions of Engineer In Charge. (Basic laminate Rate Rs.30/- per sft.)</p>	110.00	Sqm	6,732.00	7,40,520.00
166	R2-CS-RM- 124	<p>Providing & fixing FULL HEIGHT BOTH SIDE GYPSUM BOARD PARTITION at required location having height more than 2.8 meter & minimum 98 mm thick made by using 50 x 50 mm (finished size) approved quality seasoned TW section framing at 600 mm center to center,covered with 12 mm marine ply generally confirming to I.S.303 / I.S.710-1980 on both sides. The partitions shall be finished with 12.5 mm thk Gypsum Board of approved make with or without grooves as per Architect's drawing . Antitermite treatment to plywood and woodwork,door frame including all leads & lifts etc complete as per Architect's Drawing and instructions of Engineer In Charge.</p>	150.00	Sqm	6,199.00	9,29,850.00

167	R2-CS-RM- 126	Providing & fixing FULL HEIGHT ONE SIDE LAMINATED ONE SIDE GYPSUM BOARD PARTITION at required location having height more than 2.8 meter & minimum 87 mm thick made by using 50 x 50 mm (finished size) approved quality seasoned TW section framing at 600 mm center to center, covered with 12 mm marine ply generally conforming to I.S.303 / I.S.710-1980 on both sides. The partitions shall be finished with 1.5 mm thk. approved quality laminate matt/suede/fine line finished lamination pattern with grooves on one side & 12.5 mm thk Gypsum Board of approved make with or without grooves as per Architect's drawing & with necessary lipping (BTC) moulding. Antitermite treatment to plywood and woodwork, door frame including all leads & lifts etc complete as per Architect's Drawing and instructions of Engineer In Charge. (Basic Laminate Rate Rs.30/- per sft.)	126.00	Sqm	6,201.00	7,81,326.00
168	R2-CS-RM- 127	Providing & fixing FULL HEIGHT FULLY GLAZED PARTITION at required location having height approx. 2.80 meter by using 10 mm thick toughened float glass fixed in 50 mm x 100 mm approved quality seasoned T.W. section at top & bottom rail with necessary lipping (BTC) moulding & fixtures etc. complete. Antitermite treatment to woodwork, door frame & melamine polish to all woodwork including all leads & lifts etc complete as per architects Drawing and instructions of Engineer In Charge.	100.00	Sqm	5,447.00	5,44,700.00
TOTAL OF SECTION 'M'						29,96,396.00
SECTION - 'N' MISCELLANEOUS ITEMS						
169	R2-CS-RM- 129	Making holes in 110 mm to 150 mm brick/concrete/rubble walls for drainage pipes, fittings, etc. and making good the same in cement mortar 1:3 or cement concrete 1:2:4 & finishing on both sides with cement plaster and 3 coats of white or colour wash as directed.	550.00	Sqm	163.00	89,650.00

170	R2-CS-PS-30	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	203.00	Nos	1,580.00	3,20,740.00
171	R2-CS-DD-1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.	350.00	Cum	1314	4,59,900.00
172	R2-CS-DD-3	Demolishing brick work in lime or cement mortar including plaster, paint, etc. manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	150.00	Cum	484	72,600.00
		Epoxy Grout				
173	R2-CS-RM-107	njecting approved low viscous epoxy grout into concrete slab, stone masonry cracks, columns etc. by suitable gun/ pump (using Araldite GY-257 & Aradur -21 in 1:0.21 prop.) at required pressures by providing necessary scaffolding, drilling and inserting 12mm dia.Brass grouting multiperforated nipples upto 30mm to 40mm depth, using M Seal,Quartz sand around the nipple, cutting of nipples after curing, cleaning etc. complete. (This item shall be paid on actual consumption of epoxy used in Kgs.)Epoxy injection grout in between baseplate & pedestal / concrete/RCC work of approved make .	100.00	Kg	170	17,000.00
174	FA-18-BCCT-24	Name Boards & Signages : Providing & fixing Aluminium profile basedName boards as per required sizes with 3mm foam base & vynil letters, as per sample approved by Architects etc. all complete and asper fire exit norms & as per the design & instructions of Architect.	400.00	Sqm	2278	9,11,200.00
175	FA-18-BCCT-25	Signage Type 1- Providing & fixing signage plates made of anodized aluminium sections with computergrade vinyl lettering and polycarbonate sheet on top for protection of size 300 x 100 mm complete asper insructions and as directed and necessary graphic diagrams, symbols or matter, fastners etc of Engineer In charge.	842.00	Nos	920.00	7,74,640.00

176	R2-CS- RM-140	Providing & Fixing in position signage board in aluminium extruded brown anodized section or as approved with letters in vinyl on one or both side covered with acrylic sheet as per approved sample by architect with required fitting, fixtures etc. including VAT, Excise duty, Octroi, service tax and other tax,duties charges levies loading / unloading transportation, installing etc all complete. Bed Number Size : 4" x 5"	5780.00	2"	25.00	1,44,500.00
TOTAL OF SECTION 'N'						27,90,230.00
		SECTION - 'O' CRASH GUARD,CORNER GUARD,TRACK WITH CURTAINS				
177	R2-CS-RM-138	HAND RAIL CRASH GUARD 140MM X 30MM THK	3,445.00	Rmt	2,001.00	68,93,445.00
178	R2-CS-RM-139	CORNER GUARD 45MMX45MM : 4FT PCS	1,659.00	Nos	670.00	11,11,530.00
179	R2-CS-RM-135	CUBICAL PARTITION TRACK SYSTEM WITH CURTAINS	870.00	Nos	11,152.00	97,02,240.00
180	R2-CS-RM- 128	Providing & Fixing corner guard for columns at parking area size W100 x H800 x 8mm colour: Black with yellow or White Reflective Stickers Body Material: Modified Thermoplastics (Polymer Rubberized) Fixing: Fixed on the wall & corner of columns with six 2" Screws.	223.00	Nos	410.00	91,430.00
TOTAL OF SECTION 'O'						1,77,98,645.00
A		SANITARY FIXTURES & FITTING				
		NOTE: 1) Wherever single brand is mentioned in sanitary fixtures & fittings the same should be rNod as "or approved equivalent" 2) All vertical and suspended drainage , sewer, water supply pipes should be fixed on horizontal/ vertical surface on suitably design bracket as approved by Engineer in charge. No seprate payment shall be made for this account. The contractor should note this while quoting the tender.				
181	R2-CS-PS-1	with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				

182	R2-CS-PS-1-a	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	22.00	Nos	6,314.00	1,38,908.00
183	R2-CS-PS-244	Providing and fixing JAQUAR MAKE metropole flush valve Dual Flow ConcNoled type with control cock operation plate 40 mm size etc. Complete	2.00	Nos	7,929.00	15,858.00
184	R2-CS-PS-254	Providing and fixing JAQUAR MAKE,HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making goodthe wall wherever required etc complete	2.00	Nos	1,842.00	3,684.00
185	R2-CS-PS-257	Providing and fixing GLITTERS MAKE, SLOPE series Robe hook etc complete	2.00	Nos	788.00	1,576.00
186	R2-CS-PS-76	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.	330.00	Nos	15,556.00	51,33,480.00
187	R2-CS-PS-221	Providing and fixing cast iron Pan connectors with or without vent holes straight/ bend including providing & jointing with drip sNoI joints.	330.00	Nos	1,359.00	4,48,470.00
188	R2-CS-PS-264	Providing & fixing 2-way Bib cock JAQUAR MAKE, ORNAMIX Model No. 10041etc. complete.	330.00	Nos	2,578.00	8,50,740.00
189	R2-CS-PS-260	Providing & fixing in position `Jacquar Continental' make CP Jet Spray with flexible CP supply pipe, and all other accessories, complete	330.00	Nos	2,113.00	6,97,290.00
190	R2-CS-PS-244	Providing and fixing JAQUAR MAKE metropole flush valve Dual Flow Concealed type with control cock operation plate 40 mm size etc. Complete	330.00	Nos	7,929.00	26,16,570.00
191	R2-CS-PS-254	Providing and fixing JAQUAR MAKE,HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making goodthe wall wherever required etc complete	330.00	Nos	1,842.00	6,07,860.00
192	R2-CS-PS-257	Providing and fixing GLITTERS MAKE, SLOPE series Robe hook etc complete	330.00	Nos	788.00	2,60,040.00
193	R2-CS-PS-246	Supplying & Fixing Hindware make flat back Urinal rNor inlet with urinal flush valve of Jaquar make including CP SS dome shaped grating C.P. west coupling, CP sprNoder, CP `P' trap.(Urinal White color Model no.60002, Jaquar Make Push Type Valve Cat.No.PRS-077 OR consider equivalent make)	100.00	Nos	7,267.00	7,26,700.00

194	R2-CS-PS-248	White Vitreous China of 'Hindustan & Parryware' make or equivalent under counter type Oval wash basin of size 550 x 480mm with CI brackets suitable for mounting below granite counter including waste fitting with CP brass bottle trap, angle valve with CP connection etc as specified. Oval Wash Basin Model No.10051 OR consider equivalent make.)	270.00	Nos	8,192.00	22,11,840.00
195	R2-CS-PS-251	P/f Hindustan make white glazed Northern ware, wash basin constallation model (10032) of 55cmx43cm OR consider equivalent make	2.00	Nos	3,939.00	7,878.00
196	R2-CS-PS-8	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	2.00	Nos	1,177.00	2,354.00
197	R2-CS-PS-252	Providing and fixing stainless steel sink 600 mm x 450 mm and 200mm deep including 32mm dia. galvanised iron waste pipe, 32mm dia. C.P.brass waste coupling, one C.P. brass screw down tap, cast iron brackets, rubber plugs with chain etc. complete. (Kitchen Sink)	90.00	Nos	8,215.00	7,39,350.00
	R2-CS-PS-11	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete including painting of fittings and brackets, cutting and making good the wall wherever required. Cat no. 50001 OR consider equivalent make				
198	R2-CS-PS-11-A	Size 450x300x150mm	110.00	Nos	3,436.00	3,77,960.00
199	R2-CS-PS-263	WASTE COUPLING :JAQUAR : NO. 705 (FULL THRNOD)	2.00	Nos	655.00	1,310.00
200	R2-CS-PS-262	Providing & fixing chromium plated 32mm Jaguar make Series allied modelno. ALD-769 B Bottle trap (with internal partition) for Wash Basins including Waste Coupling fixed in required position with 250mm long wall connection pipes and wall flange with all necessary fittings and fixtures, etc. complete and as directed by The Engineer incharge.	2.00	Nos	1,913.00	3,826.00
201	R2-CS-PS-247	Providing and fixing JAQUAR MAKE, PRESSMATIC Taps Model No. 031 Pillarcock Auto closing system etc complete	270.00	Nos	2,834.00	7,65,180.00
202	R2-CS-PS-261	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	600.00	Nos	2,645.00	15,87,000.00

203	R2-CS-PS-255	Supply of Sink Mixer - Jaquar note:- J shape spout with wall flange of heavy duty Jaquqr make (Wall mounted). (Sink cock with J shape spout Cat. No. FLR-5309N OR consider equivalent make)	110.00	Nos	4,737.00	5,21,070.00
204	R2-CS-PS-250	P/F Jaquar make shower , necessary accessories shower arm with flange continental series sr. no. 483	118.00	Nos	1,437.00	1,69,566.00
205	R2-CS-PS-249	Providing and fixing heavy ISI marked single lever concealed diverter for bath & shower system Rain shower & its accessories. (Mixer Cat. No. CON- 421 Jaquar make OR consider equivalent make)	118.00	Nos	11,203.00	13,21,954.00
206	R2-CS-PS-258	Providing and fixing GLITTERS MAKE, SLOPE sereis Towel Rack etccomplete	118.00	Nos	1,448.00	1,70,864.00
207	R2-CS-PS-256	Providing and fixing JAQUAR MAKE,CONTINENTAL Model No. 1121 Towel ring including cutting and making good the wall wherever required etccomplete	118.00	Nos	1,281.00	1,51,158.00
208	R2-CS-PS-265	Providing and fixing brass CP angle cock for mini geyser of Metro,seiko or other equivalent approved make.	750.00	Nos	721.00	5,40,750.00
209	FA-BMH-21-41	Supplying and erecting storage / pressure type horizontal / vertical water heater 25 litres with BEE 5 star rating of mild steel body, on wall / loft complete duly tested and marking sr. no. and date of erection.specification no. AP-WH/STWH	200.00	Nos	6,912.75	13,82,550.00
210	FA-BMH-21-42	Supplying and erecting storage / pressure type horizontal / vertical water heater 25 litres with BEE 5 star rating of mild steel body, on wall / loft complete duly tested and marking sr. no. and date of erection.specification no. AP-WH/STWH	10.00	Nos	32,137.05	3,21,370.50
211	FA-BMH-21-43	Grabbars-Providing SS grabbars set for accessible toilets comprising of 4NO. Grabbars as specified below. (1NO.wing grabbar+1NO. Lshaped grabbar+ 2NO.straight grabbars=1t ypical set)27a) Swing grabbar (1NO) Providing a S.S.304 SWING HANDICAP GRABBAR-700mm and of DIA :32MM and thickness 1.5mm of the roved brand and make. 27b) LShaped grabbar (1NO) Providing S.S.304 LSHAPED DISABLED GRABBAR of SIZE-600MM(H)X600MM(D) and 32MMDIA .and thickness mm of the approved brand and make. 27c) Straight grabbar (2NO) Providing S.STEEL 304 GRAB RAIL (600MM),32MMDIA. and thickness 1.5mm of the approved brand and make.	40.00	Nos	25,642.50	10,25,700.00

212	FA-BMH-21-44	SITC OF 2- Bay Scrub Sink, with Infrared Photo sensor, Digital Timer with user defined Time interval 1,3,5 and 10 minutes,1 no. mixture valve and 1 NO. solenoid valves along with Manual Option Foot Operated mechanism/ Foot switch. Anti-splash metal body construction made of Stainless Steel Grade 304 polished finished. The Scrub Sink is provided with front access panel for NOe of maintenance and repairs. 1 – Position size 1600 mm long	4.00	Nos	2,35,708.00	9,42,832.00
213	FA-BMH-21-45	Supplying and erecting ultra violet storage type water purifier (RO+UV+UF) with softener for safe drinking water consisting of UV germicidal tube of 8W capacity choke made of copper wire and two indicator lamps with output of purified water 7 to 8 litre/min with activated carbon filter and softener operating on 230 V single phase A.C. supply.	2.00	Nos	18,487.85	36,975.70
		TOTAL SECTION 'A'				2,37,82,664.20
B		WATER SUPPLY				
214	R2-CS-PS-86	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, multi-layer having thermal stability for hot & cold water supply, including all CPVC plain & brass thrNoded 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.				
		Concealed work, including cutting chases and making good the alls etc.				
a	R2-CS-PS-86-A	15 mm nominal outer dia Pipes	1,200.00	Rmt	346.00	4,15,200.00
b	R2-CS-PS-86-B	20 mm nominal outer dia Pipes	1,400.00	Rmt	405.00	5,67,000.00
c	R2-CS-PS-86-C	25 mm nominal outer dia Pipes	2,800.00	Rmt	429.00	12,01,200.00
d	R2-CS-PS-86-D	32 mm nominal outer dia Pipes	1,800.00	Rmt	531.00	9,55,800.00

215	R2-CS-PS-85	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
		Internal work - Exposed on wall in Shaft Piping				
a	R2-CS-PS-85-A	15 mm nominal outer dia Pipes	650.00	Rmt	206.00	1,33,900.00
b	R2-CS-PS-85-B	20 mm nominal outer dia Pipes	850.00	Rmt	261.00	2,21,850.00
c	R2-CS-PS-85-C	25 mm nominal outer dia Pipes	1,600.00	Rmt	279.00	4,46,400.00
d	R2-CS-PS-85-D	32 mm nominal outer dia Pipes	800.00	Rmt	374.00	2,99,200.00
e	R2-CS-PS-85-E	40 mm nominal outer dia Pipes	800.00	Rmt	567.00	4,53,600.00
f	R2-CS-PS-85-F	50 mm nominal outer dia Pipes	900.00	Rmt	810.00	7,29,000.00
216	R2-CS-PS-87	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.				
		External work ,Terrace Loops & Header				
a	R2-CS-PS-87-G	62.50 mm nominal inner dia Pipes	1,200.00	Rmt	1,698.00	20,37,600.00
b	R2-CS-PS-87-H	75 mm nominal inner dia Pipes	750.00	Rmt	2,313.00	17,34,750.00
c	R2-CS-PS-87-I	100 mm nominal inner dia Pipes	400.00	Rmt	3,275.00	13,10,000.00
d	R2-CS-PS-87-J	150 mm nominal inner dia Pipes	250.00	Rmt	5,827.00	14,56,750.00
217	R2-CS-PN-18	Providing and applying first single coat of approved primer and two coats of synthetic enamel paint/flat oil paint of an approved make and colour as per manufacturers specifications to the CPVC. pipes of electric, gas or roof rain water down takes and fittings etc. as specified below, at all height and locations as directed including scaffolding, scraping, cleaning old paint and preparing surfaces for painting by any approved methods etc. complete as directed by Engineer-in-charge (use color of Domestic pipe sky blue & Flushing pipe green)				
a	R2-CS-PN-18-A	For pipe upto 25mm dia.	360.00	Rmt	14.00	5,040.00
b	R2-CS-PN-18-B	For pipe upto 50mm dia.	1,600.00	Rmt	17.00	27,200.00
c	R2-CS-PN-18-C	For pipe more than 50mm dia. and upto 75mm	2,000.00	Rmt	20.00	40,000.00

d	R2-CS-PN-18-D	For pipe more than 75mm dia. and upto 100mm	1,250.00	Rmt	26.00	32,500.00
e	R2-CS-PN-18-E	For pipe more than 100mm dia. and upto 150mm	200.00	Rmt	35.00	7,000.00
218	R2-CS-PS-90	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work				
a	R2-CS-PS-90-A	15 mm dia nominal bore	20.00	Rmt	199.00	3,980.00
b	R2-CS-PS-90-B	20 mm dia nominal bore	20.00	Rmt	226.00	4,520.00
c	R2-CS-PS-90-C	25 mm dia nominal bore	20.00	Rmt	281.00	5,620.00
d	R2-CS-PS-90-D	32 mm dia nominal bore	20.00	Rmt	331.00	6,620.00
e	R2-CS-PS-90-E	40 mm dia nominal bore	20.00	Rmt	376.00	7,520.00
f	R2-CS-PS-90-F	50 mm dia nominal bore	200.00	Rmt	470.00	94,000.00
g	R2-CS-PS-90-G	65 mm dia nominal bore	20.00	Rmt	590.00	11,800.00
h	R2-CS-PS-90-H	80 mm dia nominal bore	500.00	Rmt	719.00	3,59,500.00
219	R2-CS-PS-223	Providing,fixing and jointing including testing heavy quality MildSteel pipes conforming to IS: 1239 or IS: 3589 7mm thick including cutting, threaded or conforming to IS: 1239 or IS: 3589 7mm thick including cutting, thrNoded or welded (all type) joints as per detailed specifications and providing suitable flanges wherever required complete with necessary fittings viz bends, tees, reducers etc.required including fixing the pipes on wall/ ceiling/ bNom/ floor with suitable hangers, clamps and painting the pipe of following sizes complete. Pipes upto 50mm dia thrNoded joints with holdite, 65mm and above should be welded joint (All types of welded joints). A100 mm dia.	20.00	Rmt	423.00	8,460.00
220	R2-CS-PS-224	Supplying, installing, testing and commissioning of MS Pipes conforming to IS 1239 Pt - I Heavy grade 'C' Class with threaded / welded fittings such as flanges, elbows, tees, reducers etc laid above ground according to the technical specifications and drawings. Rates shall be inclusive of painting, rigid structural supports, anchor fasteners, bolts, nuts (Galvanised), clamps, "U" bolts, etc. complete. - 150 mm nominal dia	20.00	Rmt	2,540.00	50,800.00
221	R2-CS-PS-96-A	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Pressure should be 10 KG/Sq.Cm) 15 mm nominal bore	45.00	Nos	393.00	17,685.00

222	R2-CS-PS-96-B	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 20 mm nominal bore	60.00	Nos	520.00	31,200.00
223	R2-CS-PS-96-C	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 25 mm nominal bore	60.00	Nos	585.00	35,100.00
224	R2-CS-PS-281-a	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 50 mm (2') dia.	30.00	Nos	6,241.00	1,87,230.00
225	R2-CS-PS-281-b	Providing and fixing ball Cock (brass) of approved quality, High pressure, with plastic floats complete :(Note: Presure should be 10 KG/Sq.Cm) 40 mm (1 1/2") dia.	60.00	Nos	4,936.00	2,96,160.00
226	R2-CS-PS-95-A	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :25 mm nominal bore	2.00	Nos	578.00	1,156.00
227	R2-CS-PS-95-B	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :32 mm nominal bore.	2.00	Nos	886.00	1,772.00
228	R2-CS-PS-95-C	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :40 mm nominal bore	2.00	Nos	1,221.00	2,442.00
229	R2-CS-PS-95-D	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :50 mm nominal bore	2.00	Nos	2,021.00	4,042.00
230	R2-CS-PS-95-E	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :65 mm nominal bore	2.00	Nos	3,752.00	7,504.00
231	R2-CS-PS-95-F	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :80 mm nominal bore	2.00	Nos	8,013.00	16,026.00
232	R2-CS-PS-225-a	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 15 mm (1/2") dia.	2.00	Nos	545.00	1,090.00
233	R2-CS-PS-225-b	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 20 mm (3/4") dia.	2.00	Nos	678.00	1,356.00
234	R2-CS-PS-225-c	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 25 mm (1") dia.	2.00	Nos	944.00	1,888.00

235	R2-CS-PS-225-d	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 32 mm (1 1/4") dia.	2.00	Nos	1,499.00	2,998.00
236	R2-CS-PS-225-e	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 40 mm (1 1/2") dia.	2.00	Nos	2,108.00	4,216.00
237	R2-CS-PS-225-f	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines 50 mm (2") dia.	2.00	Nos	2,906.00	5,812.00
238	R2-CS-PS-235	Supplying and installing cast iron Butterfly valves PN 16 complete with both sides including flanges on receiving pipes with nuts, bolts, 1.5mm thick compressed asbestos gasket insertion as required. 65 mm dia.	60.00	Nos	4,113.00	2,46,780.00
239	R2-CS-PS-234	Supplying and installing cast iron Butterfly valves PN 16 complete with both sides including flanges on receiving pipes with nuts, bolts, 1.5mm thick compressed asbestos gasket insertion as required. 80 mm dia.	65.00	Nos	4,246.00	2,75,990.00
240	R2-CS-PS-233	Supplying and installing cast iron Butterfly valves PN 16 complete with both sides including flanges on receiving pipes with nuts, bolts, 1.5mm thick compressed asbestos gasket insertion as required. 100 mm dia.	40.00	Nos	5,576.00	2,23,040.00
241	R2-CS-PS-232	Supplying, Installing, testing and commissioning CI butterfly valves (PN 16) slim seal standard lever operated type conforming to IS 13039 with required flanges, nuts, bolts etc. complete. - 150 mm dia.	16.00	Nos	9,873.00	1,57,968.00
242	R2-CS-PS-231	Providing & fixing of CI wafer type butterfly valve (suitable for test pressure of 15 kg / sqm) with flanges, nut bolts, gaskets and necessary pad locking arrangement complete required. - 200 mm dia	2.00	Nos	16,420.00	32,840.00
243	R2-HE-7-19-D	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Pressure should be 10 KG/Sq.Cm) 32 mm nominal bore	2.00	Nos	1,928.00	3,856.00

244	R2-HE-7-19-E	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Presure should be 10 KG/Sq.Cm) 40 mm nominal bore	2.00	Nos	2,358.00	4,716.00
245	R2-HE-7-19-F	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Presure should be 10 KG/Sq.Cm) 50 mm nominal bore	2.00	Nos	3,769.00	7,538.00
246	R2-HE-7-19-G	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Presure should be 10 KG/Sq.Cm) 65 mm nominal bore	20.00	Nos	6,974.00	1,39,480.00
247	R2-HE-7-19-H	Providing and fixing gun metal ISI mark non-return valve Screwed End vertical type of following diameters etc complete in all respect etc. complete in all respect as directed by Engineer in Charge (Note: Presure should be 10 KG/Sq.Cm) 80 mm nominal bore	20.00	Nos	11,085.00	2,21,700.00
248	R2-CS-PS-282	Providing and fixing single acting air release valve with Screwed inlet 25mm dia	30.00	Nos	1,315.00	39,450.00
249	R2-CS-PS-242	f) PROVIDING & FIXING 25MM PRESSURE REDUCING VALVE ON DOWN TAKE WATER SUPPLY	8.00	Nos	4,005.00	32,040.00
250	R2-CS-PS-241	e) PROVIDING & FIXING 32MM PRESSURE REDUCING VALVE ON DOWN TAKE WATER SUPPLY (Diaphragm type with inbuilt ss strainer)	8.00	Nos	5,243.00	41,944.00
251	R2-CS-PS-240	d) PROVIDING & FIXING 40MM PRESSURE REDUCING VALVE ON DOWN TAKE WATER SUPPLY PIPES (Diaphragm type with inbuilt ss strainer)	6.00	Nos	6,548.00	39,288.00
252	R2-CS-PS-239-c	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. c) 50 mm (2") dia.	8.00	Nos	10,221.00	81,768.00

253	R2-CS-PS-239-b	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. b) 65 mm (2 1/2") dia.	24.00	Nos	17,034.00	4,08,816.00
254	R2-CS-PS-239-a	Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. Supplying & Fixing & Testing Pressure reducing Valve of Diaphragm type & inbuilt SS strainer type with necessary connectors. a) 75 mm (3") dia.	15.00	Nos	25,628.00	3,84,420.00
255	R2-CS-PS-226-a	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) a) 65 mm (2 1/2")dia pipe 5 mm thick with 150X 150(6" X 6") plate, Both ends Flanged	20.00	Nos	2,785.00	55,700.00
256	R2-CS-PS-226-b	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) b) 75 mm (3")dia pipe 5 mm thick with 200 X 200 (8" X 8") plate, Both ends Flanged	20.00	Nos	3,035.00	60,700.00
257	R2-CS-PS-226-c	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) c) 100 mm (4")dia pipe 5 mm thick with 250 X 250 (10" X 10") plate, Both ends Flanged	20.00	Nos	3,764.00	75,280.00
258	R2-CS-PS-226-d	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) d) 150 mm (6")dia pipe 7 mm thick with 300 X 300 (12" X 12") plate, Both ends Flanged	10.00	Nos	5,803.00	58,030.00
259	R2-CS-PS-226-e	Supplying & fixing 600 mm (24") to 750 mm (2'-6") long screwed G.I. C class pipe with 3 mm thick M.S. bar flange (plate) welded on it: Flanges should be of Table E of approved make. (Puddle Flange) e) 200 mm (8") dia pipe 7 mm thick with 350 X 350 (14" X 14") plate, Both ends Flanged	4.00	Nos	8,047.00	32,188.00

260	R2-CS-PS-227-a	Providing and fixing brass screwed/flanged type mosquito proof grating for under ground suction tank/Over HNode tank, over flow and vent of the following diameters. 50mm dia a) 50 mm (2") dia.	36.00	Nos	778.00	28,008.00
261	R2-CS-PS-228	Providing & fixing C.I. Manhole covers with frames / rings for R.C.C., underground water storage tanks/Over HNode tank, sizes of covers. (600mm dia.) NOTE:-should be provided with locking arrangement	36.00	Nos	4,604.00	1,65,744.00
262	R2-CS-PS-230	Supporting and installing cast iron dual plate wafer type PN 16 doubleflanged type non-return valve including nuts bolts 1.6 mm thick compressed asbestos gasket including matching flanges complete. 65 mm dia	1.00	Nos	5,218.00	5,218.00
263	HE-7-19-H	Providing and fixing gun metal ISI mark non-return valve Screwed End of following diameters etc. complete in all respect etc. complete in all respect as directed by Engineer in Charge. 80mm dia	2.00	Nos	5,837.00	11,674.00
264	R2-CS-PS-229	Supporting and installing cast iron dual plate wafer type PN 16 doubleflanged type non-return valve including nuts bolts 1.6 mm thick compressed asbestos gasket including matching flanges complete. 100 mm dia	2.00	Nos	7,545.00	15,090.00
265	R2-CS-PS-138-A	Providing and fixing enclosed type water meter(bulk type) conforming to IS:2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc (The tail pieces if required will be paid separately): 80mm dia nominal bore	1.00	Nos	20,876.00	20,876.00
266	R2-CS-PS-139-A	Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS:2373: 80mm dia	3.00	Nos	6,830.00	20,490.00
267	R2-CS-PS-236	Insulation of hot water pipe lines either GI or PPR or cPVC with 6mm thick thermaflex polyethylene nitrile rubber with primer, adhesive tape at the joint & applying a cover of polyshield on the surface for mech protection as well in complete. 15mm pipes	1,500.00	Rmt	110.00	1,65,000.00
a	R2-CS-PS-236-a	20 mm pipes	800.00	Rmt	123.00	98,400.00
b	R2-CS-PS-236-b	25mm pipes	800.00	Rmt	143.00	1,14,400.00
268	R2-CS-PS-237	Providing & fixing 13 mm thick Thermaflex Poly Ethylene Nitrite rubber (Density 30 kg/sq. cm) wrapping closely over hot water pipes chased in wall & wrapped PVC tape over Nitrile rubber.				
a	R2-CS-PS-237-a	a) 15 mm (1/2") dia.	500.00	Rmt	104.00	52,000.00

b	R2-CS-PS-237-b	b) 20 mm (3/4") dia.	600.00	Rmt	123.00	73,800.00
c	R2-CS-PS-237-c	c) 25 mm (1") dia.	800.00	Rmt	143.00	1,14,400.00
d	R2-CS-PS-237-d	d) 32 mm (1 1/4") dia.	850.00	Rmt	163.00	1,38,550.00
e	R2-CS-PS-237-e	e) 40 mm (1 1/2") dia.	400.00	Rmt	204.00	81,600.00
f	R2-CS-PS-237-f	f) 50 mm (2") dia.	250.00	Rmt	243.00	60,750.00
269	R2-CS-PS-238	Providing & fixing 20 mm thick Thermaflex Polly Ethylene Nitrite rubber (Density 30 kg/sq. cm) wrapping closely over hot water pipes chased in wall & wrapped PVC tape over Nitrile rubber.				
a	R2-CS-PS-238-a	a) 100 mm (4") dia.	20.00	Rmt	492.00	9,840.00
b	R2-CS-PS-238-b	b) 80 mm (3") dia.	20.00	Rmt	450.00	9,000.00
c	R2-CS-PS-238-c	c) 65 mm (2 1/2") dia.	20.00	Rmt	404.00	8,080.00
		TOTAL SECTION 'B'				1,70,60,939.00
C		SOIL,WASTE & VENT				
270	R2-CS-PS-259	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	450.00	Nos	356.00	1,60,200.00
271	FA-18-SIC-AV-12	P&I Upvc nahani trap 75 mm outlet	600.00	Nos	381.00	2,28,600.00
272	R2-CS-PS-219	Providing & Supplying & Fixing 100 mm dia. CI 'P' trap Suspended type floor Drain of standard design. with EPDM rubber gasket jointing as per DIN- 19543, ASTM C 1277-4.	100.00	Nos	2,109.00	2,10,900.00
273	R2-CS-PS-220-b	Supplying & Fixing Agricultural PVC 10 kg class pipe as IS 4985-2000 of Approved make with P.V.C. fittings including Chasing of Brick wall & making good the same with 1:3 cement sand plaster using Chicken wire mesh etc. complete b) 40 mm (1 1/4") dia.	1,600.00	Rmt	206.00	3,29,600.00
274	R2-CS-PS-220-a	Supplying & Fixing Agricultural PVC 10 kg class pipe as IS 4985-2000 of Approved make with P.V.C. fittings including Chasing of Brick wall & making good the same with 1:3 cement sand plaster using Chicken wire mesh etc. complete a) 50 mm (1 1/2") dia.	2,200.00	Rmt	240.00	5,28,000.00

275	R2-CS-PS-191	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed. (All fittings and accessories like clamps, etc. should be of same brand. No separate payment shall be made for fittings and accessories).	2,400.00	Rmt	314.00	7,53,600.00
276	R2-CS-PS-192	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories	4,000.00	Rmt	478.00	19,12,000.00
277	R2-CS-PS-202	Type-B 160 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).(Rain water)	3,000.00	Rmt	1,134.00	34,02,000.00
278	R2-CS-PS-216	Supplying & Fixing CI Hubless pipe as per EN 877 with stainless steel coupling with EPDM rubber gasket jointng as pe DIN- 19543, ASTM C 1277-4 including cutting masonry or walls, etc. wherever necessary for making connections, Supplying & Fixing the pipe to Ceiling, & walls on suitably design bracket including spare socket, scaffolding wherever necessary, painting the exposed faces with suitable anticorrosive paint and 2 coats of oil paint recommended by the Architect / Consultant.				
a	R2-CS-PS-216-a	80 mm dia	20.00	Rmt	1,530.00	30,600.00
b	R2-CS-PS-216-b	100 mm dia	20.00	Rmt	1,697.00	33,940.00
c	R2-CS-PS-216-c	150 mm dia	20.00	Rmt	2,506.00	50,120.00

279	R2-CS-PS-217	Supplying & Fixing & jointing with cast iron fitting such as Bends, Tees, Cross, Wye, etc. of required degree with access door with stainless steel coupling with EPDM rubber gasket jointng as pe DIN- 19543, ASTM C 1277-4.				
a	R2-CS-PS-217-a	80 mm dia	20.00	Nos	1,854.00	37,080.00
b	R2-CS-PS-217-b	100 mm dia	20.00	Nos	2,037.00	40,740.00
c	R2-CS-PS-217-c	150 mm dia	20.00	Nos	3,406.00	68,120.00
280	R2-CS-PS-218	Supplying & Fixing screwed cast brass cleanout plug with suitable inset keys & opening, male thrNoded joint with EPDM rubber gasket jointng as pe DIN- 19543, ASTM C 1277-4.				
a	R2-CS-PS-218-a	a) 80 mm (3") dia	600.00	Nos	1,477.00	8,86,200.00
b	R2-CS-PS-218-b	b) 100 mm (4") dia.	250.00	Nos	1,843.00	4,60,750.00
c	R2-CS-PS-218-c	C) 150 mm (6") dia.	20.00	Nos	4,004.00	80,080.00
281	R2-CS-RM-105	Drilling with core cutting machine in RCC slabs, walls etc.wherever required in buildings, manholes,ducts, water tanks, pits etc. for laying pipes,sleeves and making good the same to give an even finish . The rate shall include the cost of drilling core, providing EPOXY based water proofing compound for sNoling the joints around the pipes, nominal reinforcement wherever required,scaffolding and labour charges for working at all levels ,INods and heights . (Maximum thickness of RCC members shall be 300mm) and as directed by Engineer-In-Charge. g) Above 150 mm to 200mm dia	450.00	Nos	990.00	4,45,500.00
282	R2-WSP-4-39	Providing and fixing in position M.S. angles, tees, plates, rolled steel bNoms, joist and stachions, M.S. covers on valve chambers etc. including all labour and material, hoisting, fixing with bolts and nuts or by welding, painting will be primer & 3 coats of Synthetic Enamel paint etc. complete welding, painting with primer & 3 coats of Synthetic Enamel paint etc. complete	6.00	MT	83,749.00	5,02,494.00
		TOTAL SECTION 'C'				1,01,60,524.00
D	DRAINAGE					

283	R2-CS-PS-208-a	Supplying, laying, jointing & testing UPVC Drainage class pipes of Foamcore Astral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed:150 mm pipe	100.00	Rmt	862.00	86,200.00
284	R2-CS-PS-208-b	Supplying, laying, jointing & testing UPVC Drainage class pipes of Foamcore Astral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed:200 mm pipe	100.00	Rmt	1,271.00	1,27,100.00
285	R2-CS-PS-208-c	Supplying, laying, jointing & testing UPVC Drainage class pipes of Foamcore Astral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed:250 mm pipe	100.00	Rmt	2,218.00	2,21,800.00
286	R2-CS-PS-163-A	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 100 mm diameter S.W. pipe	40.00	Rmt	323.00	12,920.00
287	R2-CS-PS-164-A	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand :10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design : 100 mm diameter	40.00	Rmt	785.00	31,400.00
288	R2-CS-PS-164-B	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :150 mm diameter	500.00	Rmt	960.00	4,80,000.00
289	R2-CS-PS-164-C	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :200 mm diameter	60.00	Rmt	1,119.00	67,140.00

290	R2-CS-PS-164-D	Providing and laying cement concrete 1:4:8 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :250 mm diameter	80.00	Rmt	1,294.00	1,03,520.00
291	R2-CS-PS-166-A-1	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	20.00	Nos	2,564.00	51,280.00
292	R2-SE-8-1	Constructing brick masonry inspection chamber rectangular 0.9M x 0.45M and 0.6M deep on sewer with 230mm brick walls in cement mortar 1:3 plastered both inside & outside with 20 mm thick cement mortar 1:2 and not cement rendering so as to give a smooth surface including 230mm cement concrete bedding (M 15) and cement concrete (M 15) in haunches and channels finished smooth with 20 mm thick cement mortar (1:1) and fixing C.I. extra heavy duty airtight rectangular frame & cover of size 0.9M x 0.45M weighing minimum 225Kg. resting on 300 mm high c.c. cap M 20 with (1:1) cement plaster on both the sides & necessary C.I. steps (weighing 5.4 kg each) staggered at 300mm c/c. including 75 mm wide vata all round the external portion of the chamber and the foundation concrete in C.M. 1:1 etc. complete as per plan in Dy.Ch.E.(SP)P&D's office(without excavation).	20.00	Nos	40,697.00	8,13,940.00
293	R2-SE-8-1-a	Extra over above fore very additional metre depth upto 2.5M-do-do-etc. complete as specified and directed.	10.00	Rmt	13,531.00	1,35,310.00
294	R2-SE-8-2	Constructing brick masonry inspection chamber rectangular 0.9M x 0.6M and 0.6M deep -do- including M 20, 30 cm thick cap c.c. Bedding & including C.I. extra heavy duty air tight frame and cover weighing minimum 270kg complete as per description in item No. SE-8-1 with necessary centering etc. all complete as per plan and directed.	6.00	Nos	49,457.00	2,96,742.00

295	R2-SE-6-1	Constructing on sewer brick masonry conical manholes 1.2M dia. at bottom 0.56 M. dia. at top, built in brick masonry in cement mortar 1:3, plastered both inside and outside with 20 mm thick cement mortar 1:2 and not cement rendering so as to give a smooth surface, including 300 mm thick M.15 cement concrete in foundation and in haunches and channels finished smooth with 20mm thick cement plaster in cement mortar 1:1 and providing C.I. steps (weighing 5.4 kg each) staggered at 300 mm. c/c including 75mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming pipes with brick masonry wherever necessary including C.I. extra heavy duty (EHD) air-tight circular frame & cover (minimum 230 Kg.) with hinge/chain resting on 30 cm high cement concrete M.20 cap with necessary centering etc. all complete as per standard specifications and directions including finishing the cap	8.00	Nos	62,019.00	4,96,152.00
		with cement plaster on both sides 1:2 and neat cement rendering so as to give a smooth surface in line and level with the brick masonry surface and as per drawing in Dy. Ch.E. (Sewerage) P&D's office without excavation depth upto 1.5 M.(Depth of Manhole measured from top of manhole cover to Invert level of manhole				
296	R2-SE-6-1-A	Extra over above per metre depth above 1.5 M. and upto 2.3 M. depth - do- -do -	2.00	Rmt	18,654.00	37,308.00
297	R2-SE-6-2-B	Constructing on sewer brick masonry conical manhole 1.5 M. dia. at bottom and 0.56 M dia. at top including C.I. Extra Heavy Duty circular air tight frame and cover etc. complete as per description in item No.SE-6-1 depth upto 2.3 M.	2.00	Nos	90,305.00	1,80,610.00
298	R2-SE-6-2-C	Extra for above manhole per metre depth above 2.3 M and upto 5 M including safety chain and extra C.I steps on other side of benching -do- -do-,	4.00	Rmt	34,099.00	1,36,396.00

299	R2-CS-PS-209	Providing fixing testing and commissioning 0.9m x 1.25m x 1.0m deep GrNOe trap (0.60m liquid height) constructed out of 230 mm brick masonry with PVC Tee connection for inlet outlet & vent, DI MD Manhole cover and frame (Cover size 0.9 x 0.45 m wide 2 NO.) , 40 mm thick Kaddappa baffle wall situated across the chamber. Trap shall be internally smooth plastered with internal & externally Complete with 2 NO 0.4 M x 0.85 M x 0.1 M high SS 304. perforated trey's with handles on both side including all accessories mounting. complete as specified in drawing	2.00	Nos	48,831.00	97,662.00
300	R2-CS-EW-1	Excavation for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits & general building works in all types of soils, vegetable North, soft murum, running sand, shingle, turf clay, loam, pNot, ash, shale, slag, chalk, garbage, muddy/ marshy/ slushy soil, marine clay, reclaimed land etc. for depths/lifts upto 1.5M mNOured from the ground level, including dressing/ trimming the sides, leveling and ramming of bottoms, manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less then 97% Modified Proctor density conforming to relevant IS, stacking the selected material in meaurable heaps for future use within owners space or disposing within an initial INod of 150m as directed, loading, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer- in-Charge. Note: 1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes applicable if any.	600.00	Cmt	307.00	1,84,200.00
301	R2-CS-PS-212	Providing & fixing Potable SS GrNOe separator Trap of Aco make model FSS50,Part.No.402614 size 600 x 520 x 440 of 2 L/S flow.	2.00	Nos	39,953.00	79,906.00
		TOTAL SECTION 'D'				36,39,586.00
E		RAIN WATER				

302	R2-CS-PS-215-a	Supplying & Fixing 3 mm thick lead flashing in single piece of lead sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, a) 150 x 150 (6" x 6") square or dia outlet for 100 mm (4") pipe.	10.00	Nos	495.00	4,950.00
303	R2-CS-PS-215-b	Supplying & Fixing 3 mm thick INod flashing in single piece of INod sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, b) 230 x 230 (9" x 9") square or dia outlet for 150 mm (6") pipe.	20.00	Nos	668.00	13,360.00
304	R2-CS-PS-215-c	Supplying & Fixing 3 mm thick INod flashing in single piece of INod sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, c) 300 x 300 (12" x 12") square or dia outlet for 200 mm (8") pipe.	5.00	NOs	738.00	3,690.00
305	R2-CS-PS-215-d	Supplying & Fixing 3 mm thick INod flashing in single piece of INod sheet all around the rain water outlet mouth on a layer of cold bitmen including hNovy duty 5 mm thick C.I. grating, d) 150 x 150 (6" x 6") square or dia outlet for 75 mm (3") pipe.	1.00	Nos	495.00	495.00
306	R2-HE-1-3-D	Supplying, lowering, laying and jointing in trenches C.I. Class 'LA' , S/S pipes conforming to IS:1536 with CI / MS specials of following diameter including chamfering cut edges of pipes for specials and fixing with Styrene Butadiene Rubber (SBR) gaskets conforming to IS:5382 & IS:12820 in proper position, grade and alignment etc complete in all respect and as directed by Engineer in Charge including conveyance of material from any municipal stores in GrNoter Mumbai to site of work, including cost of jointing materials and rubber rings labour, giving hydraulic testing upto 6 kg/sqm pressure etc complete as directed by Engineer in Charge 250 mm dia pipe	150.00	Rmt	3,163.00	4,74,450.00

307	R2-HE-1-3-E	Supplying, lowering, laying and jointing in trenches C.I. Class 'LA' , S/S pipes conforming to IS:1536 with CI / MS specials of following diameter including chamfering cut edges of pipes for specials and fixing with Styrene Butadiene Rubber (SBR) gaskets conforming to IS:5382 & IS:12820 in proper position, grade and alignment etc complete in all respect and as directed by Engineer in Charge including conveyance of material from any municipal stores in GrNoter Mumbai to site of work, including cost of jointing materials and rubber rings labour, giving hydraulic testing upto 6 kg/sqm pressure etc complete as directed by Engineer in Charge 300 mm dia pipe	200.00	Rmt	4,199.00	8,39,800.00
308	R2-CS-RW-16-B	Providing and fixing UV resistant selffit UPVC pipes of approved make for Rainwater downtakes confirming to IS 13592:1992 Type A suitable for 4kg/sqcm pressure for following pipe diameters including rain water receiving recess with pvc plug bend necessary fittings such as offsets shoes, fixing the pipes on wall with clips filling the joints with solvent/cement and necessary scaffolding etc. complete as directed by Engineer In Charge.(Make to be use Supreme / Astral / Aquafit) 100 mm dia	150.00	Rmt	406.00	60,900.00
309	R2-CS-RW-16-C	Providing and fixing UV resistant selffit UPVC pipes of approved make for Rainwater downtakes confirming to IS 13592:1992 Type A suitable for 4kg/sqcm pressure for following pipe diameters including rain water receiving recess with pvc plug bend necessary fittings such as offsets shoes, fixing the pipes on wall with clips filling the joints with solvent/cement and necessary scaffolding etc. complete as directed by Engineer In Charge.(Make to be use Supreme / Astral / Aquafit) 150 mm dia	300.00	Rmt	756.00	2,26,800.00
		TOTAL SECTION 'E'				16,24,445.00
F		STORM WATER				

310	R2-CS-PS-213-a	Supplying & fixing 40 mm thick DI heavy Rain water grating over storm water channel of heavy duty. a) 600 x 300 MM(300wide)	200.00	Nos	8,460.00	16,92,000.00
311	R2-CS-PS-213-b	Supplying & fixing 40 mm thick DI heavy Rain water grating over storm water channel of hNovy duty. b) 600 x 450 MM (450wide)	20.00	Nos	9,657.00	1,93,140.00
312	R2-CS-PS-213-c	Supplying & fixing 40 mm thick DI heavy Rain water grating over storm water channel of heavy duty. c) 600 x 600 MM (600wide)	400.00	Nos	14,378.00	57,51,200.00
313	R2-WSP-4-39	Providing and fixing in position M.S. angles, tees, plates, rolled steel bNoms, joist and stachions, M.S. covers on valve chambers etc. including all labour and material, hoisting, fixing with bolts and nuts or by welding, painting will 3 coats of Synthetic Enamel paint etc. complete welding, painting with primer & 3 coats of Synthetic Enamel paint etc. complete.	2.00	MT	83,749.00	1,67,498.00
314	R2-CS-PS-214	Constructing brick masonry valve & meter/RWH chambers in 250mm thick brick masonry in cement mortar 1: 5 using first class bricks constructed over a bed of 150mm thick cement concrete 1:2:4 plastering inside outside and all exposed surface with 20mm thick cement mortar 1.3, finishing inside with a floating coat of nNot cement providing & fixing CI frame & cover size, weight mentioned below painting all CI items with 3 coats of approved bitumastic paint etc. complete. Chamber 600 x 600mm cINor inside with 600 x 600 CI frame & cover weighting not less than 72kg. Depth of chamber not exceeding 1000mm	15.00	Nos	17,500.00	2,62,500.00
315	R2-CS-PS-168-B	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 150 mm dia. R.C.C. pipe	200.00	Rmt	473.00	94,600.00
316	R2-CS-PS-168-C	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 250 mm dia. R.C.C. pipe	100.00	Rmt	813.00	81,300.00
317	R2-CS-PS-168-D	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 300 mm dia. R.C.C. pipe	10.00	Rmt	866.00	8,660.00

318	R2-CS-PS-168-E	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 450 mm dia. R.C.C. pipe	10.00	Rmt	1,197.00	11,970.00
319	R2-CS-PS-168-F	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 500 mm dia. R.C.C. pipe	10.00	Rmt	1,536.00	15,360.00
320	R2-CS-PS-168-G	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) 600 mm dia. R.C.C. pipe	10.00	Rmt	1,808.00	18,080.00
		TOTAL SECTION 'F'				82,96,308.00
		GRAND TOTAL (A+B+C+D+E+F)				6,45,64,466.20
		Say				6,45,64,467.00