

BRIHANMUMBAI MUNICIPAL CORPORATION

Combined BOQ

W-414 : Improvement of various major Roads in CC/CC Passage and Sidestrips in CC Passage in K/W, P/S & P/N Ward of Z-IV, W.S.

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
1	R2-RW-7-37	(a) To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing	181.00	20182.50	Upto 500 Meter	3,653,032.50
2	R2-RW-7-38	To carry out total station survey of the road with reference to existing coordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross	150.00	3900.00	/100 Meter	585,000.00
3	R2-RW-7-39	To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross	9.00	21190.00	Upto 500 Meter	190,710.00
4	R2-RW-7-40	To carry out total station survey of the road with reference to existing co-or dinate system by establishing control stations by establishing temporary chmark from permanen t benchmark,marking centreline of the road by nails, carrying out detailed levelling, plotting cross	96.50	4238.00	/100 Meter	408,967.00
5	R2-RW-7-43	To carry out total station survey of the road with reference to existing coordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross	2.00	25220.00	Upto 500 Meter	50,440.00
6	R2-RW-7-44	To carry out total station survey of the road with reference to existing coordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross	36.00	5044.00	/100 Meter	181,584.00
7	R2-CS-EW-3	Excavation for foundation, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits&general building works in soft/disintegrated rock, sandstone, stiff clay, gravel, cobblestone, hydraulic or water borne or acidan over mor	855157.00	500.00	Cum	427,578,500.00
8	R2-CS-EW-4	Excavation of trenching by manual operations, pneumatic breaker, hammer, drilling, compressor breaker, jack hammer etc. for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, poles, pits & general	56960.50	1054.00	Cum	60,036,367.00
9	R2-CS-EW-7-a	Extra over the items CS-EW-03 to CS-EW-06 for lift from 1.5m to 3.0m.	114198.00	127	Cum	14,503,146.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
10	R2-SWD-45	Supplying and providing blue trap stones of approved quality and laying hand set dry rubble packing 25 cm. thick to required level and grade, camber including filling in the interstices with 60 mm. metal and small stone chips, etc. and thoroughly rammed	180029.00	846	Cum	152,304,534.00
11	R2-RW-10-26	P/L ready mix cement concrete M-15 cc having avg compressive strength 18.5 Mpa for Foundation/ encasement/ pavement/ cradle including form of mixing in batch ing plant, compacting by internal & surface vibrator, curing, finishing etc. complete as specified	86454.00	6893.00	Cum	595,927,422.00
12	R2-RW-10-29	P/L R.M.C. M-20C.C. having avg compressive strength 24Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at work site, compacting, finishing, curing etc. by	81810.00	7055.00	Cum	577,169,550.00
13	R2-CS-CW-35-c	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, nardies, cornice, fire arches	20850.50	76770.00	M.T.	1,600,692,885.00
14	R2-CS-RF-7-B-FAIR	Providing, fabricating & fixing the leak-proof shuttering made with marine plywood /M.S. Sheets with proper supports at all locations for all shapes etc., for encasement & deshuttering the same after specified period or next day of placing the microconcrete/	1176071.00	558.00	Sqm	656,247,618.00
15	R2-CS-RF-7-F-FAIR	Providing, fabricating & fixing the leak-proof shuttering made with marine plywood /M.S. Sheets with proper supports at all locations for all shapes etc., for encasement & deshuttering the same after specified period or next day of placing the microconcrete/	169169.00	483	Sqm	81,708,627.00
16	R2-RW-7-32	Providing and placing in position, leveling, fixing M 25 Grade R.C.C. pre-cast frame of size 1150 x 1150 x 150 mm and cover (2 Nos) of size 1000mm x 500mm x 75mm in line, level over storm water drain as per design	23754.00	2896.00	Set	68,791,584.00
17	R2-RW-10-51	Providing and fixing of water Dished Channel size: 600 x 300 x 80 mm, M-40 grade manufactured in vacuum wet press technology plant with excellent finish and sharp edges inclusive of excavation in any soil except rock, laying of leveling course of M15 grade BMC	11587.00	799.00	Meter	9,258,013.00
18	R2-RW-8-02	P/L 250 mm dia. R.C.C. manholes, R2 class, jointing, filletting in 1:1C.M., including plugging of both the ends with gunny bags, brick masonry in C.M.1:4 with plaster in C.M.1:4 & curing etc. complete, as specified as directed	31167.00	640.00	Rmt.	19,946,880.00
19	R2-SWD-148	Supplying and fixing 0.90m x 0.60m internal size of rectangular C.I. air-tight cover and frame weighing minimum 270 of material grade of min. FG 150 conforming to IS 210:2009 and specification no SP-SWD3 with the grade designation of HD 20 conforming to	100.00	31371.00	Each	3,137,100.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
20	R2-SWD-146	Supplying and fixing 1.20m x 0.90m internal size of rectangular C.I. air-tight cover and frame weighing minimum 910 kg of material grade of min. FG 150 conforming to IS 210:2009 and specification no SP-SWD3 with the grade designation of HD 20 conforming to Providing and Constructing brick masonry	830.00	94200.00	Each	78,186,000.00
21	R2-SWD-119	inspection chamber rectangular 0.9M x 0.60M 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 neat cement rendering so as	7341.00	49457.43	Each	363,066,993.63
22	R2-SWD-120	Extra over item no R2-SWD-119 per meter depth above 0.60m and upto 2.5m, etc all complete as specified & as directed by Engineer in Charge.	2073.00	15442.39	Meter	32,012,074.47
23	R2-CS-EW-16	Excavation over areas for basements, roads, land/plot development in soft/ disintegrated rock, sand stone, stiff clay, gravel, cobblestone, hard laterite, water bound macadam, wet mix macadam, pitching, soling, paths and hardcore, lime concrete, plain	595992.00	343.00	Cum	204,425,256.00
24	R2-RW-1-13	Leveling, watering & roiling by vibratory roller weighing not less than 10 tonnes & preparing the ground to the required grade & camber etc. complete as specified and as directed by the Engineer as per prevailing MCGM specifications for Road works	991719.00	9.83	Sqm	9,748,597.77
25	R2-RW-2-21	Providing & laying, spreading & compacting specified crushed stone in granular subbase course including premixing the material in mechanical mixer (pugmill or approved type), spreading of mixed material in uniform layer of 100 mm to 75mm (compacted thickness	71877.00	2547.00	Cum	183,070,719.00
26	R2-RW-2-20	Providing & laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pugmill) carriage of mix material by	161643.00	2937.00	Cum	474,745,491.00
27	R2-RW-10-32	finer to site laying in uniform layer of 75 mm Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150kg/ cum of concrete with OPC43 grade cement, mixing of concrete as per approved design, mixing mechanised	66350.00	4481.00	Cum	297,314,350.00
28	R2-RW-10-33	Providing & laying M-40 C.C. avg. compressive strength 45 MPa and b avg. flexural strength of 5.0 MPa (As per IRC 15-2002.N.1.6) procured from M.C.G.M. approved R.M.C. plant including use of approved water plasticizer/retarder &	227817.00	7968.00	Cum	1,815,245,856.00
29	R2-RW-10-39	Extra & over for providing and using special admixtures/ plasticizers to achieve required crushing & average flexural strength 5.0 Mpa of M40 grade concrete in 7 days. NOTE :THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF	241839.00	1067.00	Cum	258,042,213.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
30	R2-RW-10-27	P/L R.M.C. M-10 C.C. having avg. compressive strength 13.5 Mpa in foundation/encasement/ pavement with or without chequered design including formwork, mixing in batching plant, placing, vibrating with plate or needle vibrator, curing etc. complete as provided and applying PRIMER COAT with	82875.00	6452.00	Cum	534,709,500.00
31	R2-RW-5-20	CATIONIC BITUMEN EMULSION (SS) @ 7 to 12Kg. of 10 Sqmt. over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc	238981.00	57.00	Sqm	13,621,917.00
32	R2-RW-5-23	Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.2 to 0.25Kg. of Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc	238235.00	33.00	Sqm	7,861,755.00
33	R2-RW-5-25	Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.30 Kg. of Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc	238235.00	35.00	Sqm	8,338,225.00
34	R2-RW-5-46	P/L Premix Dense bituminous macadam with 4.50% bitumen content of grade VG-40 to the required line, level, and camber rolling with 10/12 M.T. power, vibratory roller & sensor paver etc. complete as specified and as directed with antistripping agent at 1% by weight of	17563.00	9008.00	Cum	158,207,504.00
35	R2-RW-5-51	P/L premix hot mix Bituminous concrete with 6.00% of VG-30 bitumen content by weight of mix surface coat to compacted to required thickness using new material to the required grade, level and camber rolling with power, vibratory roller, pneumatic roller & sensor	642.00	10974.00	Cum	7,045,308.00
36	R2-RW-5-64	P/L, mastic asphalt 40mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same with mastic paver and including all necessary tools, labours &	77540.00	1571.00	Sqm	121,815,340.00
37	R2-RW-5-65	P/L, mastic asphalt 25mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same with mastic paver and including all necessary tools, labours &	172817.00	1079.00	Sqm	186,469,543.00
38	R2-RW-6-03	Raising or lowering circular manholes to the required level upto 20cm. Including all material, form work etc. with 16cm. thick cement concrete M-15 (1:2:4) c.c. coping under frame and cover of manhole, including curing etc. complete as specified and as directed.	2755.00	1151.00	Each	3,171,005.00
39	R2-RW-6-04	Raising or lowering water entrances, hydrant key box/sluicibox/gully trap chambers to the required level, upto 20cm. including all materials, curing etc. complete as specified and as directed.	362.00	801.00	Each	289,962.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
40	R2-RW-6-05	Raising or lowering rectangular manholes to the required level upto 30cm. Including all materials, form work, brick work and with 16 cm.thick M-15 C.C. coping under frame & cover of manhole including curring etc complete as specified and as directed	723.00	2297.00	Each	1,660,731.00
41	R2-RW-6-06	Removing the old C.I. curicular frame & cover & delivering the same to any Municipal depot or workshop, as directed.	723.00	147.00	Each	106,281.00
42	R2-RW-7-01	Removing & refixing traffic regulatory boards/bus stop boards/street name boards etc. in M-100 cement concrete, complete as directed.	432.00	881.00	Each	380,592.00
43	R2-RW-7-29	Excavation and dismantling of structures on roadway, shifting and relocating of essential utilities, street poles, signals road sign boards including taking necessary permission from the service providers/authorities including payment of necessary deposits and supervision	415.00	1229.00	Nos	510,035.00
44	R2-RW-7-31	Excavation and dismantling of structures on roadway, shifting and relocating of essential utilities, street poles, signals road sign boards including taking necessary permission from the service providers/authorities including payment of necessary deposits and supervision	307.00	327.00	Nos	100,389.00
45	R2-SE-5-1-a	Providing & laying stoneware pipes of SP2 class including jointing with CM(1:1), filleting etc. complete as specified & directed. 150 mm	8095.00	657.00	Rmt.	5,318,415.00
46	R2-RW-8-03	P/L 300 mm dia. R.C.C. nune pipes, NP2 class, jointing, filling in 1:1 cement mortar, including plugging of both the ends with gunny bags, brick masonry in cement mortar 1:4 with plaster in cement mortar 1:4 & curing etc. complete as specified as directed	415407.00	796.00	Rmt.	330,663,972.00
47	R2-RW-8-04	Providing & fixing in position M- 20 cement concrete precastslab, 50cmx50cm.&8cm. Thick with the word "DUCT" inscribed over it including making good,the damaged surrounding surface etc. complete.	4549.00	326.00	Nos	1,482,974.00
48	R2-RW-10-46	Providing and fixing pre-cast Central Median divider Type-I of R.M.C. in M-20 C.C. on Road as per drawing, finished neatly, compacting, curing, with formwork, etc, including bedding of R.M.C. of M-10 C.C, 15cm thick, filling of joints in CM 1:2 &	5520.00	1685.00	Rmt.	9,301,200.00
49	R2-RW-10-06	Providing & laying R.C.C. running beam in M-40 cement concrete including required form work mixing, compacting & curing, etc. complete reinforced with 12mm dia. (Minimum 4 Nos.) M.S. main bars & 6mm Dia M.S. rings at 15cm c/c to be anchored in	29345.00	844.00	Rmt.	24,767,180.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
50	R2-RW-10-11	Cutting of construction & dummy joints of M-35 C.C. & above slab by mechanical means within 10 to 16 hrs. Of casting of bay / slab as directed. A)transverse dummy joints 100 mm deep / 1/3 thickness of concrete pavement & 6mm wide	838406.00	59.00	Rmt.	49,465,954.00
51	R2-RW-10-12	Cutting of construction & dummy/joints of M-35 C.C. & above slab by mechanical means within 10 to 16hrs. of casting of bay/slab as directed.B)Longitudinal construction joints 100 mm deep/1/3rd thickness of slab & 6mm wide	931037.00	59.00	Rmt.	54,931,183.00
52	R2-RW-10-13	Providing & fixing in position premoured Asphalt filler 12mm thick conforming to I.S. 1838 of 1983 for placing of the expansion joint, around manholes & water entrances, etc put to the required depth & 25 mm below the camber etc. complete as directed.	85784.00	352.00	Sqm	30,195,968.00
53	R2-RW-10-14	Providing & placing 5mm thick thermocole in dummy & construction joint immediately after cutting of joints & removing the same before dressing of dummy & construction joints etc. complete , as directed.	190542.00	76.00	Sqm	14,481,192.00
54	R2-RW-10-15	Providing & fixing high density polythene pipe of approved quality to fit around the dowel bars of 32 mm dia at the end of expansion joints, fully greased inside, cotton waste the pipe around the dowel bars & the pipe duly capped at the end as directed.	23231.00	31.00	Nos	720,161.00
55	R2-RW-10-16	Providing & fixing in position mild steel tie bars of 12 mm dia 55 cm long & 45 cm C/C whenever directed including handling, wrapping with paper for half length, fixing, straightening, wastage etc. complete in all respect as directed.	136.00	63226.00	M.T.	8,598,736.00
56	R2-RW-10-17	Providing & fixing in position M.S. dowel bars of 32mm dia 55 cm long & 30 cm C/C whenever directed including handling, fixing, etc. complete(no extra payment will be made for applying bitumen & grease to dowel bars).	178.00	62904.00	M.T.	11,196,912.00
57	R2-RW-10-19	Providing & constructing cement slabs in CM (1:10) at 0.6m *0.6m c/c/admeasuring 0.09m at bottom,0.04m at top & 0.075m deep & maintaining the same throughout 14 days curing & removing the same thereafter as directed.	1267912.00	78.00	Sqm	98,897,136.00
58	R2-RW-10-23	Dressing of M-35 & above new C.C. pavement, dummy, transverse, longitudinal & expansion joints with hot rubberised sealing compound conforming to IS1834 -1984 after proper cleaning with compressed air, applying required primer & providing a layer of lime	838406.00	92.00	Rmt.	77,133,352.00
59	R2-RW-10-24	Dressing of M-35 & above new C.C. pavement, dummy,transverse,longitudinal&expansion joints with hot rubber is edsealing compound conforming to IS 1834-1984 after proper cleaning with compressed air, applying	931037.00	92.00	Rmt.	85,655,404.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
60	R2-HE-7-2-a	Supplying, providing laying and jointing GI pipes in trenches of following class and diameter by wrapping them by hessian cloth with tar coating and including any nominal pipe length required to be laid above ground level. conveyance from stores to site work. all	17230.00	168.00	Rmt.	2,894,640.00
61	R2-HE-7-2-b	---Do-----20 mm dia.	20660.00	174.00	Rmt.	3,594,840.00
62	R2-HE-7-2-c	---Do-----25 mm dia.	15400.00	265.00	Rmt.	4,081,000.00
63	R2-HE-7-2-d	---Do-----32 mm dia.	15400.00	316.00	Rmt.	4,866,400.00
64	R2-HE-7-2-e	---Do-----40 mm dia.	15400.00	388.00	Rmt.	5,975,200.00
65	R2-HE-7-2-f	---Do-----50 mm dia.	15400.00	481.00	Rmt.	7,407,400.00
66	R2-CS-PS-90-a	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc 15 mm dia	15400.00	199.00	Rmt.	3,064,600.00
67	R2-RT-16-33	Providing and applying non applied thermoplastic road marking material with glass beads extremely high skid resistance 2.5mm thick without primer coat (tack coat) on asphalt road surface. All labour materials with special aggregates etc. as specified in B.S. part	111110.00	662.00	Sqm	73,554,820.00
68	R2-RT-16-07	Arrow marking for Route direction straight or right or left or straight & right or straight or left & lettering as per design in white or traffic yellow as specified and directed for speed limit upto 50 km/hrs.	1973.00	1241.00	Nos	2,448,493.00
69	R2-RT-16-08	Street Name Board without sign board. Providing, fabricating and erecting on site Street Name Board (of type 2S-A-1) as per the design incorporated in the catalogue of street Furniture (Volume-II) Published by M.C.G.M. Vertical pole shall be M.S. Square pipe of size	511.00	22712.00	Nos	11,605,832.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
70	R2-RT-16-15	Junction Name Board : Providing, fixing and erecting on site Junction Name Board / Chowk (of type 2S-D), as per the design incorporated in the catalogue of street Furniture published by M.C.G.M., Vertical pole shall be M.S. Square pipe of size 100mm x 100mm x 3.5mm Direction Board - Providing, Fabricating,	443.00	35459.00	Nos	15,708,337.00
71	R2-RT-16-18	Erecting on site Direction Board (of type 3SA2)(small-2) As per the design incorporated in the catalogue of street Furniture published by M.C.G.M., Vertical pole shall be ISMC 350. Signage plaque (box) Mandatory & Cautionary Board - Providing,	480.00	37751.00	Nos	18,120,480.00
72	R2-RT-16-25	Fabricating, Erecting on site Mandatory & Cautionary Boards (of type 1S-A-1). As per the design incorporated in Street Furniture catalogue volume-II published by M.C.G.M., Vertical poles shall be M.S. Square pipe of	1333.00	6469.00	Nos	8,623,177.00
73	R2-RT-16-27	TRIANGULAR BOARD - Providing, Fabricating, Erecting on site Mandatory Boards (of type 1S-A-1.1). As per the design incorporated in Street Furniture catalogue volume-II published by M.C.G.M., Vertical poles shall be M.S. Square pipe of size 50mm	1014.00	12031.00	Nos	12,199,434.00
74	R2-GW-7-11	Supply and Spreading of Red Hill Earth Red hill earth free from graass, stones, rubbles redish in colour pass through 5 mm sieve and spreading of red hill earth at site location/ plot and rolling as directed by site incharge	2288.20	1283.00	Cum	2,935,760.60
75	R2-SE-10-3	Supplying and fixing 0.56 M dia C.I. Circular extra heavy duty (EHD) air tight frame and cover weighing minimum 230kg fixed complete to manholes.	2656.00	29935.00	Each	79,507,360.00
76	R2-SWD-154	Providing & Fixing 100 mm. dia PVC. Pipes of approved quality as weep holes in nalla/retaining walls etc.complete as directed by Engineer in Charge.	31265.00	355.00	Rmt.	11,099,075.00
77	R2-RW-10-28	Supply & fixing sand metal, GRAVELLY SAND, corresponded to CLASS II/ CLASS III GRADING of TABLE 100.1 of MCGM road specifications for roadworks in trenches upto required depth & watering, ramming etc. complete as directed	10125.00	1905.00	Cum	19,288,125.00
78	R2-SWD-35	Cutting down existing cement / mme concrete works by any means in pavement, bedding below foundation, coping, walls arches, stone, brick pavement coping etc. of any thickness of any height / depth above or below ground level etc complete as specified & as directed by	34424.00	1314.00	Cum	45,233,136.00
79	R2-SWD-36	Cutting down completely RCC slab, walls, beams , columns, arches, piles, pile caps of any thickness and or size of any height / depth by any means below or above ground level including cutting down steel reinforcement, removing and stacking them properly as	79555.00	1588.00	Cum	126,333,340.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
80	R2-RW-10-18	Providing & laying water proof paper of 40 GSM including overlap (to be not less than 10cm)etc. complete as specified as directed.	1032463.00	11.00	Sqm	11,357,093.00
81	R2-RW-10-63	Extra Over item of stretch concrete above M-20 in footpath Providing, applying and finishing the top surface of M-20 concrete with stamp/ stencil of approved pattern and colour, in accordance with manufacturer's specification of any approved brand of colour providing applying renew & Black road	208847.00	436.00	Sqm	91,057,292.00
82	R2-RW-7-17	marking paint grade-I in 3-coats including single coat of approved brand primer after cleaning of old surface of kerbstone with brushing by wire brush as per relevant I.S. codes to the satisfaction of Engineer in charge	131756.00	50.00	Rmt.	6,587,800.00
83	R2-SWD-57	Providing 12 mm thick cement plaster in cement mortar 1:2 including neat cement rendering with approved water proofing compound (with a proportion as specified by the manufacturer per bag of cement) as specified & as directed by Engineer in Charge	14955.00	271.00	Sqm	4,052,805.00
84	R2-SWD-58	Providing 20 mm thick cement plaster in cement mortar 1:2 including neat cement rendering (without water proofing compound) as specified & as directed by Engineer in Charge.	9920.00	376.00	Sqm	3,729,920.00
85	R2-RT-16-34	Supplying/ fixing of Two way Raised Pavement Markers made of polycarbonate moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kN	267840.00	427.00	Each	114,367,680.00
86	R2-SWD-25	Providing and placing in position conditioned Ready Mix Concrete of M-25 grade in raft slab by using ordinary Portland cement including curing by any means, as specified & as directed by Engineer in Charge.	48003.00	6979.00	Cum	335,012,937.00
87	R2-SWD-30	Providing and placing in position conditioned Ready Mix Concrete of M-25 grade in walls, deck slab above or below ground level at any height/depth by using ordinary Portland cement including curing by any means, as specified & as directed by Engineer in Charge	106933.00	8735.00	Cum	934,059,755.00
88	R2-SWD-178	Providing & placing in position conditioned Ready Mix Concrete of grade M- 40 in raft slab by using Ordinary Portland Cement including transportation to site anywhere in Mumbai including curing by any means etc. complete as directed by Engineer in Charge	52107.00	7777.00	Cum	405,236,139.00
89	R2-SWD-179	Providing & placing in position conditioned Ready Mix Concrete of grade M- 40 in walls and deck slab above or below ground level at any height / depth by using Ordinary Portland Cement including Transportation anywhere in Mumbai including curing by any means etc	87554.00	9569.00	Cum	837,804,226.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
90	R2-SWD-76	Providing and laying 450mm dia NP2 Class R.C.C. Hume pipes with Collar joints conforming to IS 458:2003 and laid on approved bedding as per IS 783:1985 (reaff. 2010)	4424.00	2041.00	Meter	9,029,384.00
91	R2-SWD-176-A	Providing & Fixing 1.20m x 0.60m clear internal size of M.S. Galvanised hinged type grating and frame (weighing minimum 130 kg) of grade HD20, with minimum 75 microns zinc coating by hot dipped galvanising the MS grating and frame as per IS 2629. (The	10492.00	17084.00	Nos	179,245,328.00
92	R2-RW-10-37	Providing and fixing of the precast T.C.C. GUARD KERB of M-20 C.C. of height 230mm., width 100mm., Length 400mm., finished neatly, compacting, curing, formwork etc. including bedding of M-10 C.C. procured from M.C.G.M approved	9738.00	471.07	Rmt.	4,587,279.66
93	R2-RW-2-22	Rebate for not using motor grader / paver for laying of Granular Sub base in R2-RW-2.21.	30519.00	-93.00	Cum	-2,838,267.00
94	R2-RW-5-71	Rebate for not using SENSOR PAVER INSTEAD OF ORDINARY PAVER USED for Laying of BITUMINOUS MIXES.	2659569.00	-7.00	Sqm	-18,616,983.00
95	R2-SWD-142	Constructing single water entrance of internal size 0.50m x 0.60m with cast-in-situ coping in M-20 grade, fixing of grating in M -20 as per standard drawings (Dwg No. MCGM/SWD/2013-14), etc complete as specifying and as directed by Engineer in	22038.00	11641.00	Each	256,544,358.00
96	R2-SWD-175-A	Providing & Fixing 0.60m x 0.30m clear internal size of DI hinged type grating and frame (weighing minimum 80 kg) with grade designation of C250 with black bitumen coating to DI gratings & frame confirming to EN124 including testing, inspection of material	21984.00	14786.00	Each	325,055,424.00
97	R2-RW-10-50	Providing and fixing of cement concrete KerbStone of various grades of size: 500mm width x 325 height x 165mm thick (HalfBatter, BullNose / FullBatter) manufactured in wet press vacuum dewatering technology plant / equivalent with face nubble	146774.00	1,116.00	Rmt.	163,799,784.00
98	R2-RT-16-14	Providing, fabricating and fixing M.S. flange and fixing circular Steel Bollards of 100mm dia circular Steel Pipe (of type 3F-A-1) as per the design incorporated in the Catalogue of Street Furniture (Vol-II). Published by MCGM, made of 10 Gauge, 304 quality	4812.00	16062.00	Nos	77,290,344.00
99	R2-RT-16-02	Providing, fabricating and fixing M.S. flange of 10 Gauge, Dia. 40mm circular railing with Dia. 18mm circular intermediate support, Dia. 65mm circular main supports with M.S. pedestal (base -I-type) and M.S. cap -(type-I) including cutting, welding, riveting oil	21697.00	7121.00	Meter	154,504,337.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
100	CE4-18-96.1-FA2	Providing and laying tactile paving (for visually impaired person), conforming to IS:15622, of approved make in all colours and shades for outdoor floors such as footpath, courtyard, multi-modal allocation etc.-size 300 x 300 x 0.8mm with water absorption less than 0.5%.	58658.00	4422.00	Sqm	259,385,676.00
101	R2-SE-1-1	Excavation in all types of soils (for sewerage works), such as Earth, Marine clay, Marshy land, Running sand, Garbage, Slush, Murum, Rock boulders etc as directed by the engineer. The rate includes dewatering, backfilling, removing the rock vegetation and removing extra over above for item no. SE-1-1 to SE-1-1-i for relevant lift of excavation in soft/ disintegrated rock, road carriageway, sand stone, stiff clay, gravel, cobblestone, hard laterite, water bound macadam, wet mix macadam, asphalt mix carpet of any type	1595.00	468.00	Cum	746,460.00
102	R2-SE-1-1-j	-do-do- as per item SE-1-1 for lift from 2m to 4.0m	483.00	429.00	Cum	207,207.00
103	R2-SE-1-1-A	Providing and removing cross shoring and strutting in the trenches/ pits for all depths as per specifications/ drawings and or as directed by Engineer-in-charge by including walling, struts, open poling boards, horizontal sheeting, runners, dog spikes by using timber etc.	143.00	638.00	Cum	91,234.00
104	R2-SE-1-4	Providing & Laying dry stone Rubble Somng with average 230 mm size hard stone set in regular lines, handpacked and interstices thoroughly filled with small chips including filling in with good quality murum brought from outside, compacting with iron rammers	1595.00	715.00	Sqm	1,140,425.00
105	R2-CS-EW-26	Providing & laying stoneware pipes of SP2 230mm dia etc.	71.00	2231.00	Cum	158,401.00
106	R2-SE-5-1-B	-do- -do- M 15 c.c. For full encasement or cradle -do- -do-	495.00	1113.00	Meter	550,935.00
107	R2-SE-2-5	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	115.00	7,354.00	Cum	845,710.00
108	R2-SE-6-2-B	Extra for above manhole per metre depth above 2.3M and upto 5 M including safety chain and extra C.I. steps on other side of benching- do-do-	26.00	90305.00	Nos	2,347,930.00
109	R2-SE-6-2-C		13.00	34099.00	Meter Depth	443,287.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
110	R2-SE-9-1	Providing R.C.C. spun vent shaft 7.5 M in height embedded in M15 cement concrete including flue chamber etc. complete without excavation. The height of the vent shaft to be measured from its bottom upto the top as per the drawing and as specified and directed.	40.00	52114.00	Nos	2,084,560.00
111	R2-RW-3-22	Removing the paver blocks of any thickness, size & colour from carriage way or footpath & transporting the same to ward depot or any where in MCGM limit. The paver blocks shall be stacked neatly at specified locations etc. complete as specified and as directed by the	346140.06	157.00	Sqm	54,343,988.64
112	R2-CS-MW-4-b	designation 3.5 and above in superstructure above plinth level upto floor five level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	10756.63	6930.00	Cum	74,543,445.90
113	R2-RW-10-55	Excavation in reinforced OR pavement grade concrete M-20 & above by using modern machinery (poclainwithrockbreaker,etc.) including with stacking of excavated material within 150m radius etc. complete upto any depth as specified & as directed by the	528.00	1525.00	Cum	805,200.00
114	R2-RT-15-04	Providing, casting and fixing (any where in city or suburban limit) precast reinforced parabolic dividers in C.C.M 25, Type-5 as per drg. No. EET&C/Gen/013/03/ty dt. 11.12.03 (Revised on 15.06.06) including providing, bending, fixing of reinforcement as per	420.00	6403.00	Meter	2,689,260.00
115	R2-CS-MW-1-A	Brick masonry in C.M. 1:3	1225.00	6031.00	Cum	7,387,975.00
113	R2-CS-PL-15-b	In cement mortar 1:4	1901.62	438.00	Cum	832,909.56
114	R2-RT-16-35	Supplying/ fixing of One Way Raised Pavement	324.00	420.00	Sqm	136,080.00
115	R2-RW-1-06	Standard Proctor Density with a power roller weighing not less than 10 tonnes and preparing the ground to the required grade and camber for rolling in trenches as specified as directed by the Engineer	7135.00	18.00	Sqm	128,430.00
116	R2-RW-1-08	F/L earth work in embankments & /or filling low-laying grounds in layers not exceeding 25cm. In loose thickness & compacting each layer with a 10/12 tonnes power roller including levelling watering, etc. complete in conformity with a required lines grades & cross	12566.00	1511.00	Cum	18,987,226.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
117	R2-RW-2-02	Supplying blue trap stones of approved quantity & providing the same in rubble packing 25cm thick to the required grade, level & camber, filling in voids with chips & 60mm metal etc. compacting using mechanical vibrating compactor / 8-10 MT Roller	6283.00	352.00	Cum	2,211,616.00
118	RT3-15-014-FAIR-1	Providing and laying C.E. Marked knitted and PVC coated Polyester Biaxial Geogrid (Techgrid) of Techfab India for Basal Reinforcement indigenously manufactured from selected high tenacity polyester yarn with high molecular weight (>25000 g/mol) and	25132.00	219.00	Sqm	5,503,908.00
119	RT3-15-014-FAIR-2	Providing and laying C.E. marked woven Polypropylene Geotextile of Techfab India Indigenously Manu. from UV stabilized polypropylene tape yarn on the prepared subgrade for Reinforcement cum separation	34364.00	138.00	Sqm	4,742,232.00
120	R2-RW-5-50	7/11 not premix Dense bituminous macadam with 4.50% bitumen content of grade 60-70 to the required line, level, and camber rolling with 10/12 M.T. power, vibratory roller & sensor paver etc.	20.00	8797.00	Cum	175,940.00
121	R2-RW-5-47	7/11 not premix Dense bituminous macadam with 4.50% bitumen content of grade VG-30 to the required line, level, and camber rolling with 10/12 M.T. power, vibratory roller & sensor paver etc. complete as specified and as directed	5491.00	572.00	Sqm	3,140,852.00
122	R2-RW-5-40	7/11 not premix Bituminous concrete with 6.00% of bitumen grade 30/40, surface coat by mix design as per MORTH to the compacted thickness of 40 mm, using new material to the required line, level and camber rolling with power vibratory roller & sensor	268.00	450.00	Sqm	120,600.00
123	R2-RW-3-11	Providing & fixing 80 mm thick interlocking unishape concrete pavers (monolithic- single layer precast concrete blocks) of gray cement coloured in the carriageway having average crushing strength 50N/sq.m.m. as per technical specification, placed on average	200.00	871.00	Sqm	174,200.00
124	R2-RT-16-32	Providing and applying not applied thermoplastic road marking material with glass beads extremely high skid resistance 2.5mm thick with primer coat (tack coat) on cement concrete road/paver blocks surface. All labour materials with special aggregates etc	9254.00	727.00	Sqm	6,727,658.00
125	R2-RW-7-08	Breaking & removing existing cement concrete slab over culvert coping etc., by any means etc. complete as directed	149.00	1315.00	Cum	195,935.00
126	R2-SWD-38	Providing Brick masonry in cement mortar 1:5 as specified & as directed by Engineer-in-Charge.	20.00	11670.00	Cum	233,400.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
127	R2-SWD-56	Providing 12 mm thick cement plaster in cement mortar 1:2 including neat cement rendering (without water proofing compound) as specified & as directed by Engineer-in-Charge..	160.00	217.00	Sqm	34,720.00
128	R2-SWD-152	Removing C.I. Frame and cover (any size) and transporting to ward office as directed.	11.00	359.00	Each	3,949.00
129	R2-SWD-145	Supplying and fixing 0.50m internal dia circular C.I. airtight cover and frame weighing Between weighing minimum 208kg of material grade of min. FG 150 conforming to IS 210:2009 and specification no SP-SWD- 3 with the grade designation of HD 20	11.00	23096.00	Each	254,056.00
130	R2-SWD-169	Providing & fixing 0.60m x 0.50m clear internal size of M.S. Galvanised hinged type grating and frame (weighing minimum 71 kg) with minimum 75 microns zinc coating by hot dipped galvanising the MS grating and frame as per IS 2629 (The contractor shall furnish	54.00	9441.00	Nos	509,814.00
131	R2-SWD-147	Supplying and fixing 0.90m x 0.45m internal size of rectangular C.I. air-tight cover and frame weighing minimum 225 of material grade of min. FG 150 conforming to IS 210:2009 and specification no -3 with the grade designation of HD 20 conforming to IS	36.00	28889.00	Each	1,040,004.00
132	R2-RW-8-01	1.50mm dia. R.C.C. manholes, NP-2 class, jointing, filletting in 1:1 C.M., including plugging of both the ends with gunny bags, brick masonry in C.M. 1:4 with plaster in C.M. 1:4 & curing etc. complete, as specified as directed.	9265.00	454.00	Rmt.	4,206,310.00
133	R2-CS-CW-58	Providing and spreading broken glass pieces under the compound pavement as directed at the rate of 1.2 cubic meters of broken glass pieces for 100 sq.mts.of area	830.00	45.00	Sqm	37,350.00
134	R2-RW-10-30	Providing & fixing pre-cast Beam in M 40 CC of size 23 cm x 23 cm x 35 cm in length set in 15 cm M15 C.C. filling of joints in 1:2, including escavation, form work, mixing compacting , curing etc. complete as specified and as directed.	192.00	445.00	nos	85,440.00
135	R2-SE-5-9-a	Providing, Laying and Jointing HDPE pipes of PE-80 grade and PN-6 class with butt joints etc.complete as specified and directed.	326.80	983.00	Rmt.	321,244.40
136	R2-CS-PS-169-a-2	Constructing brick masonry inspection chamber in cement mortar 1:4 (1cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand :	28.00	9782.00	Each	273,896.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
137	R2-CS-CW-35-b	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,paradies, coping, fins, arches	9493.00	76770.00	MT	728,777,610.00
138	R2-CS-CW-30-a	Foundations, footings, bases of columns, rafts, pilecap	14877.00	300.00	Sqm	4,463,100.00
139	R2-CS-CW-30-b	Walls (any thickness) including attached butteresses, ,retaining wall, shear wall, diaphragm wall etc	76913.00	558.00	Sqm	42,917,454.00
140	R2-CS-CW-30-f	Stairs (waist slab), folded slab, inclined slab	21652.00	483.00	Sqm	10,457,916.00
141	R2-RW-10-49	Providing and fixing pre-cast Central median divider Type- II of R.M.C.M-20 C.C. on Road as per drawing, finished neatly, compacting , curing, formwork, etc, including beding R.M.C. M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed	200.00	1046.00	Rmt.	209,200.00
142	R2-RT-16-04	Providing and fabricating and fixing S.S. railing of 10 Gauge,40mmx40mm square pipe railing with 18 mm x 18 mm square intermediate support, 65mm x 65mm square main supports with M.S.pedestal (base- I type) and M.S. cap (type D) including	50.00	18530.00	Rmt.	926,500.00
143	R2-RT-16-35	Supplying, fixing of One way raised Pavement Markers made of polycarbonate moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kg	5858.00	420.00	Each	2,460,360.00
145	R2-SWD -46 -A	Constructing uncoursed rubble masonry in cement mortar 1:5 of first sort (with contractor's rubble), as specified & as directed by Engineerin- Charge	50.00	6678.00	Cum	333,900.00
146	R2-RW-10-31	Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content150 kg/cum of concrete with OPC 43 grade cement, mixing of concrete as per approved design mix using mechanised	24668.00	4562.00	Cum	112,535,416.00
147	R2-RW-10-25	Dressing of M-55 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound conforming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime	3615.00	60.00	Rmt.	216,900.00

Sr. No.	Schedule Item No.	Description	Total Qty	Rate	Per	Amount
148	R2-RW-5-63	P/L, mastic asphalt 40mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same with mastic paver and including all necessary tools, labours & Street Name Board without sign board.	5491.00	1660.00	Sqm	9,115,060.00
149	R2-RT-16-08-a	Providing, fabricating and erecting on site Street Name Board (of type 2S-A-1) as per the design incorporated in the catalogue of street Furniture (Volume-II) Published by M.C.G.M. Vertical pole shall be M.S. Square pipe of size	511.00	4666.00	Nos	2,384,326.00
Total						15,558,382,628.13
Say						₹15,558,382,629.00