

BRIHANMUMBAI MUNICIPAL CORPORATION

Sub: C-309 Strengthening & Improvement of various roads in CC/CC Passage/Side Strips and damaged CC Panels in City Division

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
1	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.	Cu.Mt.	307.00	786000.83	241302254.8
		1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water				0
		2) It also includes the royalty and other taxes applicable if any				0
						0
2	R2-CS-EW-2-a	Extra over above item CS-EW-1 for lift from 1.5m to 3.0m.	Cu.Mt.	71.00	231116	16409236
						0
3	R2-CS-EW-2-b	Extra over above item CS-EW-1 for lift from 3.0m to 4.50m.	Cu.Mt.	106.00	19099	2024494
						0
4	R2-CS-EW-2-c	Extra over above item CS-EW-1 for lift from 4.5m to 6.0m	Cu.Mt.	171.00	766	130986
						0
5	R2-CS-EW-18	Excavation by using splitters over areas for basements, roads, land/plot developement etc. in hard rock, reinforced concrete, Bituminous macadam for all depths/lifts, including manual dewatering, filling the selected excavated earth at the locations as directed, 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. 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 if any.	Cu.Mt.	3,007.00	32508	97751556
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
6	R2-CS-EW-13	Providing and removing open or closed 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. complete.	Sq.Mt.	715.00	116446	83258890
						0
7	R2-CS-EW-16	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 then 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, loading, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer-in-Charge. 1) The rate includes the handling/supporting the existing	Cu.Mt.	343.00	645301.145	221338292.7
		cables, drains, pipes, water mains etc. 2) It also includes the royalty and other taxes if any.				0
		2) It also includes the royalty and other taxes if any.				0
						0
8	R2-RW-10-55	Excavation in Reinforced OR pavement grade concrete M-20 & above by using modern machinery (poclain with rock breaker, etc.) including with stacking of excavated material within 150 m radius etc complete upto any depth as specified & as directed, by the	Cu.Mt.	1,525.00	29604	45146100
						0
9	R2-RW-1-13	Levelling, watering & rolling by vibratory roller weighing not less than 10 tonnes & preparing the ground to the required grade & camber etc. complete as specified as directed by the Engineer as per road specifications.	Sq.Mt.	9.83	274470.257	2698042.626
						0
10	R2-RW-1-06	Levelling, watering and rolling to 95% 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 .	Sq.Mt.	18.00	224655.575	4043800.35
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
11	R2-RW-1-07	P/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 sections & also cleaning & grubbing the ground etc. complete as per New Road Specifications clause no. 151.0	Cu.Mt.	1,422.00	0	0
						0
12	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 (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared subbase & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricating & maintenance of diversion etc. as directed by the Engineer, (Rebate for not using sensor paver should be taken, (metal gradation from 53mm to 75mm micron as per MCGM Road Specifications clause no.240).	Cu.Mt.	2,937.00	233662.3325	686266270.6
						0
13	R2-RW-2-21	Providing & laying, spreading & compacting specified crushed stone in granular subbase course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixed material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricating to all lifts & lead maintenance of diversion etc. complete (metal gradation from 75mm to 75mm micron as per MCGM Road Specifications clause no.210).	Cum	2,547.00	251271.061	639987392.4
						0
14	R2-RW-10-31	Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150 kg/cum of concrete with OPC 43 grade cement, mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying and compacting with vibratory roller of minimum 80- 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as directed by the Engineer. A)	Cu.Mt.	4,562.00	91964.095	419540201.4
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
15	R2-RW-10-33	Providing & laying M-40 C.C.avg. compressive strength 45 MPa and avg.flextural 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 make plasticizer / retarder & Contractors water with ice flakes and transported by RW-10-33 transit mixer and placing at work site. Compacting finishing, initial curing by approved curing compound & Contractors water and tarring the sides of slab with hot bitumen as specified and directed (w/c ratio 0.4 maximum)(vata for curring will be paid separately.) (MINIMUM CEMENT CONTENT 350 kg/m ³)	Cu.Mt.	7,968.00	230098.7535	1833426868
						0
16	R2-RW-10-11	Cutting of construction & dumm/joints of M-35 C.C.& above slab by mechanical means within 10 to16 hrs.of casting of bay/slab as directed. A) transverse dummy joints 100mm deep/1/3 thickness of concrete pavement &6mm wide.	Rmt.	59.00	764160.575	45085473.93
						0
17	R2-RW-10-12	Cutting of construction & dumm/joints of M-35 C.C.& above slab by mechanical means within 10 to 16 hrs.of casting of bay/slab as directed. B) Longitudinal construction joints 100mm deep/ 1/3rd thickness of slab & 6mm wide	Rmt.	59.00	829135.15	48918973.85
						0
18	R2-RW-10-13	Providing & fixing in position premoulded asphalt filler 12mm thick confirming to I.S. 1838 of 1983 for placing of the expansion joint,around manholes & waterentrances, etc put to the required depth & 25mm below the	Sq.Mt.	352.00	33417	11762784
						0
19	R2-RW-10-14	Providing & placing 5mm thick thermocole in dummy & construction joints immediately after cutting of joints & removing the same before dressing of dummy & construction joints etc. complete , as dirceted.	Sq.Mt.	76	1023271.45	77768630.2
						0
20	R2-RW-10-15	Providing & fixing high density polythene pipe of approved quality to fit around the dowel bars of 32mm 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.(H.D.P. pipe shall be 30cm in length) As shown in the drawing.	EACH	31	187188	5802828
						0
21	R2-RW-10-16	Providing & fixing in position mild steel in tie bars of 12mm dia 55cm long & 45cm C/C whenever directed including handling , wrapping with paper for half length,fixing straightening, wastage etc. complete in all respect as directed.	MT	63,226.00	397.7	25144980.2
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
22	R2-RW-10-17	Providing & fixing in position M.S. dowel bars of 32mm dia 55cm long & 30cm C/C whenever directed including handling, fixing, etc. complete(no extra payment will be made for applying bitumen & grease to	M.T.	62,904.00	823.141	51778861.46
						0
23	R2-RW-10-18	Providing & laying waterproof paper of 40 GSM including overlap (to be not less than 10cm)etc. complete as	m2	11.00	943056.575	10373622.33
						0
24	R2-RW-10-19	Providing & constructing cement vatas 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	m2	78.00	984097.325	76759591.35
						0
25	R2-RW-10-23	Dressing of M-35 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. A) Sealing 6mm wide dummy/transverse joints with a depth of 100mm/1/3rd thickness of concrete pavement.	RM.	92.00	715852.575	65858436.9
						0
26	R2-RW-10-24	Dressing of M-35 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. B) Sealing of 6mm wide longitudinal joint with depth of 100mm./1/3rd thickness of concrete pavement.	RM.	92.00	680772.575	62631076.9
						0
27	R2-RW-10-25	Dressing of M-35 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. C) Sealing of 25mm wide expansion joints with avg. depth of 12mm.	RM.	60.00	59553	3573180
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
28	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 compacted thickness of 25mm, uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as specified and as directed by the Engineer.	Sq.Mt.	871.00	4486	3907306
						0
29	R2-RW-3-13	Removing & refixing interlocking concrete pavers of 80 mm thick, having of any size, shape and colour considering 10% breakage area of paver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 50 N/mm ² placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. Complete as specified and as directed by the Engineer.	Sq.Mt.	225.00	2458	553050
						0
30	R2-RW-3-14	Removing & refixing interlocking concrete pavers of 60 mm thick, having of any size, shape and colour considering 10% breakage area of pver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 40 N/mm ² placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.	Sq.Mt.	215.00	7084	1523060
						0
31	R2-RW-3-17	Providing & fixing in the footpath, 60 mm thick Lacquer coated (Reflective) interlocking gray cement concrete pavers in red (Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm ² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer	Sq.Mt.	858.00	4799	4117542

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
						0
32	R2-RW-3-18	Providing & fixing in the carriageway 80 mm thick gray cement concrete Lacquer coated (Reflective) interlocking pavers in red (Terra Cotta) Lemon Yellow, Bright Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 50N/mm ² manufactured in double layer precast concrete blocks the top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm sieve 100% passing and retained on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilette stabilized pigment @ 5% by weight of white cement and should be coated with lacquer having hard, high abresive resistance and water repellent. The bottom layer should be 65 to 68 mm thick having 12 mm sieve 100% passing aggregate as per technical specification placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with proper capacity with mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.	Sq.Mt.	1,042.00	1220	1271240
						0
33	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 location etc. complete as specified and as directed by the Engineer .	Sq.Mt.	157.00	217612.9	34165225.3
						0
34	R2-RW-10-50	Providing and fixing of cement concrete Kerb Stone of various grades of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose/ Full Batter) manufactured in wet press vacuum dewatering technology plant / equivalant with face pimple finish for high visibility with excellent quality and finish and edges perfect and sharp. Grade – M-25 including excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm thick to required slope (inclusive of form work), jointing in C.M. 1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/ white/ black or any shade as directed. (Kerbstones shall be procured from MCGM registered agencies).	Rmt .	1,116.00	75479	84234564
						0
35	R2-RW-4-02	Removing & resetting kerb stones in 1:2 C.M. on new R.M.C.M-10 C.C. bed 15 cm, thick including filling the joints with 1:2 C.M. pointing, curing etc. complete.	Rmt .	351.00	62833	22054383
						0
36	R2-RW-7-17	Providing applying Yellow & Black road marking paint grade -I in 3 coats including single coat of approved brand primer after cleaning of old surface of kerb stone with brushing by wire brush as per relevant I.S. codes to	R.Mt.	50.00	62833	3141650

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
						0
37	R2-RW-10-51	Providing and fixing of Water Dished Channel size : 600 x 300 x 80mm, 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 M 15 grade RMC 100mm. thick to required slope, (inclusive of form work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Watertables shall be procured from MCGM registered agencies).	Rmt .	799.00	49924	39889276
						0
38	R2-RW-4-07	Removing & resetting water tables 30 cm. wide on a new M-10 cement concrete bed 15 cm .thick including filling in the joints with C.M. 1:2 and cement pointing , curing including removing the old cement bed, curing etc. complete	Rmt .	398.00	1362	542076
						0
39	R2-RW-4-13	Removing & resetting double row of sett stones on R.M.C.M-10 C.C bed, 15 cm. thick and 25 cm. wide including filling the joints with C.M. 1:2 and cement pointing and removing old concreted bed, curing etc. complete.	Rmt .	372.00	245	91140
						0
40	R2-RT-15-05	Providing,casting Fixing (any where in city or suburban limit)precast type-1 (both side Taper) dividers in C.C M- 25 as per drg. No. EET&C/Gen/013/03/Ty dt. 11.12.03. (Revised on 15/06/06) including,fixixng the dividers on site in C.M. 1:2 for cushioning and jointing,curing,painting the exposed surface with grade-I road marking paint (confirming to IS 164) in two coat of approved colour,including excavation in road portion and removing excavated material as per direction any where in city or suburban limit,cleaning the site etc. as directed by the Engineer.Rate is inclusive of all lift and leads,transportation required for the work.	R.Mt.	3,149.00	3105	9777645
						0
41	R2-RT-15-07	Providing,casting Fixing (any where in city or suburban limit) precast type-2 (Single side Taper) dividers in C.C M- 25 as per drg. No. EET&C/Gen/013/03/Ty dt. 11.12.03. (Revised on 15/06/06) including,fixixng the dividers on site in C.M. 1:2 for cushioning and jointing,curing,painting the exposed surface with grade-I road marking paint (confirming to IS 164) in two coat of approved colour,including excavation in road portion and removing excavated material as per direction any where in city or suburban limit,cleaning the site etc. as directed by the Engineer.Rate is inclusive of all lift and leads,transportation required for the work.	R.Mt.	1,220.00	2485	3031700
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
42	R2-RW-5-20	Providing and applying PRIME COAT with CATIONIC BITUMEN EMULSION (SS) @ 7 to 12 Kg. of 10Sqmt. over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed. For Low Porosity surface & the primed surface shall be allowed to cure for at least 24 hours or any other higher period, as is found to be necessary to allow all the moisture or volatiles to evaporate before any subsequent bituminous surface treatment or mix is laid (As per New Road Specifications Clause No. 313, curing as per 313.5)	Sqm	57.00	79609	4537713
						0
43	R2-RW-5-23	Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.2 to 0.25 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. completed, as directed. For NORMAL BITUMINOUS SURFACES & the tack coat shall be left to cure until all the volatiles have evaporated before any subsequent construction is started, which is indicated by change in colour from brown to black (As per New Road Specifications Clause No. 314 curing as per 314.3.4)	Sqm	33.00	100458	3315114
						0
44	R2-RW-5-24	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. completed, as directed For DRY & HUNGRY BITUMINOUS SURFACES (As per New Road Specifications Clause No. 314)	Sqm	35.00	39729	1390515
						0
45	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 Sqm bitumen, including cleaning of road surface etc. completed, as directed. For GRANULAR SURFACES Treated with PRIMER (Clause No. 314)	Sqm	35.00	94105	3293675
						0
46	R2-RW-7-10	Milling upto 75mm. Depth Asphaltic surface by using milling machine including transportation anywhere as directed. (This item should be operated only when the milling in a single pass is required to be done more than 60mm. Depth.)	Sqm	82.00	29995	2459590
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
47	R2-RW-1-01	Scarifying the existing bituminous road surface to a depth of 15 cm removing, including transportation any where & bringing the existing road to proper grade, level & camber &/ as per super elevation, rolling with 10/12 Tonnes power roller & binding the scarified layer with stone dust/grit/ sand, watering, brushing, rolling, etc. complete as specified as directed by the Engineer.	Sqm	180.00	4651	837180
						0
48	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 & barricading, spreading of aggregates as antiskid measures by means over newly laid mastic asphalt as per clause no. 365 of 'Road Specification' as directed by Engineer in charge (Note: The material specifications / gradation & content shall be as specified in the relevant I.S. Codes)	Sqm	1,660.00	61875	102712500
						0
49	R2-RW-5-50	P/L hot PremixDense bituminous macadam with 4.50%bitumen content ofgrade VG-30 to the required line,level,and camber rolling with 10/12M.T.power ,vibratory roller & sensor paveretc. complete as specified and as directed to the required thickness with antistripping agent at 1%by weight ofbitumen using grading II of "MORTH"(As per prevailing MCGMspecification for Roadworkclause no.354).	Cu.m	8,797.00	3413	30024161
						0
50	R2-RW-5-48	P/L hot PremixDense bituminous macadam with 4.50%bitumen content ofgrade VG-30 to the required line,level,and camber rolling with 10/12M.T.power ,vibratory roller & sensor paveretc. complete as specified and as directed to thickness of 50 mm. with antistripping agentat 1% by weight of bitumen using grading II of "MORTH"(per prevailingMCGM specification for Roadwork clause no.354)	Sqm	440.00	64572	28411680
						0
51	R2-RW-5-41	P/L MINIMUM 30 mm compacted thick hot Premix Bituminous concrete with6.00% of VG-40 grade bitumen using new material any where as directed including Rolling with 10/12 MTpower ,vibratory roller & sensor paver to the required line, level, camber with line filler of 2% by weight & antistripping agent @ 1% of bitumen content by weight etc. complete.(per prevailing MCGM specification for Roadworks clause no.364)	Sqm	338.00	12206	4125628
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
52	R2-RW-6-03	Raising or lowering circular manholes to the required level upto 20 cm.including all material, form work etc. with 16 cm. 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	Each	1,151.00	5431	6251081
						0
53	R2-RW-6-04	Raising or lowering water entrances, hydrant key box/ sluice box/gully trap chambers to the required level, upto 20 cm. including all materials, curing etc. complete as	Each	801.00	4090	3276090
						0
54	R2-RW-6-05	Raising or lowering rectangular manholes to the required level upto 30 cm. including all materials, form work, brick work and with 16 cm. thick M-15 C.C. coping under frame & cover of manhole including curing etc.	Each	2,297.00	5233	12020201
						0
55	R2-HE-8-24	Removing and refixing of existing S.P. fire hydrants for replacing of mouth piece, duck foot bend, Sluice valve, as required as per specifications & drawing but including painting the hydrant, fixing the saddle piece, supplying and jointing the same with spun yarn, molten lead, including caulking etc. complete as directed & as specified by Engineer In Charge. (as per IS : 908) Note : 1) The new material required, will be paid separately on the basis of weight per kg of material. 2) The cost of constructing valve chamber will be paid separately. 3) Rebate for salvation cost of existing material replaced will be taken at the rate of Rs 25/Kg Basic rate for new material a) CI Rs 55 /kg	Each	1,452.00	484	702768
						0
56	R2-HE-8-25	Removing of existing S.P. fire hydrants and replacing them with new SP fire hydrants with its complete assembly including supplying and jointing the same with spun yarn, molten lead, including caulking etc. complete as directed & as specified by Engineer In Charge. (as per IS : 908). Note : The salvage value for old fire hydrant has been considered on per Kg basis	Each	15,104.00	465	7023360
						0
57	R2-RW-7-01	Removing & refixing traffic regulatory boards/busstop boards/street name boards etc. in M-100 cement concrete, complete as directed.	Each	881.00	1042	918002
						0
58	R2-RW-7-02	Removing traffic regulatory boards/busstop boards with brackets etc., to Ward Chowky complete, as directed.	Each	197.00	453	89241
						0
59	R2-RW-7-05	Cutting down existing stone/ brick masonry compound walls, abutments,piers,wing-walls etc. including stacking the rubble,khandkies etc. in stack, as directed (Actual	Cu.Mt.	211.00	4851	1023561
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
60	R2-RT-16-04	Providing and fabrication and fixing Stainless Steel railing of 10 gauge of 304 grade stainless steel having minimum nickel content of 10% (laboratory testing certificate shall be provided for used material), 40mmX40mm square pipe railing with 18mmX18mm square intermediate support,65mmX65mm square main supports with Stainless Steel pedestal (base-I type) and Stainless Steel cap- (type-I) including cutting, welding, riveting, polishing as directed and fixing in cement concrete foundation as shown vide Sr.No.2F-A1 in catalogue of Street Furniture (Vol.I) published by M.C.G.M including removal of surplus material/debris and restoring damaged portion. (footpath, etc. directed (with advertisement panel)	R.Mt.	18,530.00	125	2316250
						0
61	R2-RT-16-14	Circular Steel Bollards : Providing, fabricating 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 material with minimum nickel content not less than 10% (laboratory testing certificate shall be provided for used material) with steel pedestal and steel cap as per designs (3F-A1), (3F-A1.1),(3F-A1.2) and (3F-A1-3) suitable to match the design adopted for surrounding railing including cutting, welding, riveting, polishing. The foundation shall either be with base plate of 200 x 200 x 6mm thick, 16 mm dia J Bolts or embedding pipe in foundation by providing 20mm Dia x 6 nos holdfasts embedded in 1:2:4 concrete as shown in drawing (3F-A1.1). inclusive of making good the damage portion of footpath with matching pavers blocks, tiles removing debris etc. complete as per specifications and as directed by the Engineer	Nos.	16,062.00	6314	101415468
						0
62	R2-RT-16-07	Arrow marking for route direction in white or traffic yellow as specified for speed limit upto 50kmph	Each	1,241.00	3118	3869438
						0
63	R2-RT-16-32	Providing and applying hot 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, as specified in B.S. part-I & II 1989 and carrying out the marking on any road on center line and other lane marking continuous for intermittent 10cm or 15cm width and also pedestrian crossings stripes as well as spraying further quality of glass beads of type II uniformly into a mono layer on to the hot paint line in quick succession of the paint spraying operation @ 250gms per sq.mt. area as directed and as per B.S./M.O.S.T. specification in White /Yellow colour.	Sq.Mt.	727.00	64437	46845699
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
64	R2-RT-16-33	Providing and applying hot 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-I & II 1989 and carrying out the marking on any road on center line and other lane marking continuous for intermittent 10cm or 15cm width and also pedestrian crossings stripes as well as spraying further quality of glass beads of type II uniformly into a mono layer on to the hot paint line in quick succession of the paint spraying operation @ 250gms per sq.mt. area as directed and as per B.S./M.O.S.T. specification in White /Yellow colour.	Sq.Mt.	662.00	30205	19995710
						0
65	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 75mm x 75mm x 3.5mm thk. Signage plaque (box) shall be of size 900mm x 600mm made of M.S.angle frame of size 50mm x 50mm x 6mm thick covered with 3mm thk aluminum sheet / F.R.P. Sheet on both sides. The signage plaque assembly shall be fixed to the vertical pole with 40mm x 10mm thk size MS support plate. The traffic signboard of size 600mm dia shall be supported on M.S. support pipe of size 50mm x50mm x 3mm. Traffic sign board shall be made of 25mm x 25mm x 3mm thick M.S. Sq. pipes covered with 3mm thk. Aluminum sheet / F.R.P. sheet on both sides as shown in the figure. The top open end of the vertical pole shall be closed with M.S. plate of size 75mm x 75mm x 3.5mm thick. Both the boxes shall be pasted with HIGH INTENSITY GRADE retro reflective base sheets on both sides conforming to I.P.C. 67 CODE. Lettering equipment to be provided as per specification.	Nos.	22,712.00	424	9629888
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
66	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 thick. Signage plaque (box) shall be of size 900mm x 900mm made of M.S.L angle frame of size 75mm x 75mm x 6mm thick covered with 3mm thick aluminum sheet / F.R.P. Sheet on both sides, the box assembly; shall be fixed to the vertical pole with 40mm x 10mm thick size MS support plate. The top open end of the vertical pole shall be closed with MS Plate of size 100mm x 100mm x 3.5mm thick. The box shall be pasted with HIGH INTENSITY GRADE retroreflective base sheets on both sides conforming to I.R.C. 67 CODE. Letters or signages to be pasted on this box shall also be of HIGH INTENSITY GRADE (up to 50% of basic area) conforming to I.R.C. 67 CODE. The reflective of sheet shall have guarantee of 7 years. The reflection count shall not be less than 90% of its original reflection after 7 years. The foundation shall	Each	35,459.00	237	8403783
						0
67	R2-RT-16-25	Mandatory & Cautionary Board - Providing, 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 size 50mm x 50mm x 3.5mm thick. Signage plaque (box) shall be of size 600mm dia. The box shall be made of MS Square pipe of size 25mm x 25mm x3mm thick covered with 3 mm thick aluminum sheet / F.R.P. Sheet on both sides, The box assembly; shall be fixed to the vertical pole. The box shall be pasted with HIGH INTENSITY GRADE retro reflective base sheets on both sides conforming to I.R.C. 67 CODE. Letters or signages to be pasted on this box shall also be of HIGH INTENSITY GRADE (up to 50% of basic area) conforming to I.R.C. 67 CODE. The reflectivity of sheet shall have guarantee of 7 years.refection count shall not be less than 90% of its original reflection after 7 years.The foundation shall either be with base shall either be with base plate of M.S. of size 200 x 200 x 6mm thick, 16 dia J Bolts or embedding the pole in foundation with 12mm dia x 6 nos. hold fasts embedded in 1:2:4 concrete as shown in drawing	Each	6,469.00	687	4444203
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
68	R2-RW-10-37	Providing and fixing of the precast TREE 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 R.M.C. plant, 10cm. thick, filling of jointing in C.M. 1:2 and painting the exposed surface with 3 coats of road marking paint, Grade I of approved colours and quality including single coat of approved brand primer including excavation in C.C., asphalt etc. as specified and as directed.	R.Mt.	471.07	27856	13122125.92
						0
69	R2-SWD-45	Supply Blue trap stone of approved quality and providing the same in rubble packing 25 cm thk to required level & grade, camber including Filling in interstices with 60mm metal & small stone chips etc. and thoroughly	Cu.mtr	846.00	102034.4	86321102.4
						0
70	R2-SWD-35	Cutting down existing cement / lime 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 & directed.	Cu.Mt.	1,314.00	20250	26608500
						0
71	R2-CS-MW-1-a	Providing & Constructing B.B masonry 230 mm thk 1:3 C.M mortar	Cu.Mt.	6,031.00	4776.929	28809658.8
						0
72	R2-SWD-57	Providing 12 mm thick Cement Plaster in 1:2 Cement mortar including neat cement rendering with approved water proofing compound (with a proportion as specified by the manufacturer per bag of cement) as specified &	Sq.Mt.	271.00	21449	5812679
						0
73	R2-SWD-58	Providing 20 mm thick Cement Plaster in Cement mortar 1:2 including neat cement rendering (without water	Sq.Mt.	376.00	21975	8262600
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
74	R2-SWD-87	Providing and constructing stormwater drain brick masonry conical manhole as per standard drawings (Dwg No. MCGM/SWD/2013-01), with 1.20 m internal dia at bottom , 0.56 m internal dia at top as per IS 4111: Part 1:1986 Cl.4.9 for a depth 1.50 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 ,andsupporting the incoming and outgoing pipeswith brick masonry wherever necessary, including 300 mm high cap in M-30 grade concrete finishing with cement plaster on both sides in CM 1:1, with necessary	Nos.	29,730.00	2053.75	61057987.5
						0
75	R2-SWD-88	Extra over item no SWD-87 per meter depth above 1.50m and upto2.30m, etc complete as specified and as directed by Engineer-in-Charge.	M.D.	20,043.00	429	8598447
						0
76	R2-SWD-89	Providing and constructing stormwater drain brick masonry conical manhole as per standard drawings (Dwg No. MCGM/SWD/2013-02), with 1.50 m internal dia at bottom , 0.56 m internal dia at top as per IS 4111: Part 1:1986 Cl.4.9 for a depth 2.30 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both external and internal faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including 300 mmhigh cap in M-30 grade concrete finishing with cement plaster on	Nos.	48,262.00	1351	65201962
						0
77	R2-SWD-90	Extra over item no SWD-89 per meter depth above 2.30m and upto 5.0m including safety chain and extra Co- polymer polypropylene steel reinforced steps on either side of benching, etc complete as specified &as directed	M.D.	37,398.00	1527	57106746
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
78	R2-SWD-92	Providing and constructing stormwater drain brick masonry conical manhole as per standard drawings (Dwg No. MCGM/SWD/2013-02), with 1.80 m internal dia at bottom , 0.56 m internal dia at top as per IS 4111: Part 1:1986 Cl.4.9 for a depth 2.90 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both external and internal faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including 300 mm high cap in M-30 grade concrete finishing with cement plaster on	Each	90,911.00	275	25000525
						0
79	R2-SWD-93	Extra over item no SWD-92 per meter depth above 2.90 m and upto 5.0m including safety chain and extra Co-polymer polypropylene steel reinforced steps on either side of benching, etc complete as specified & as	MD	40,410.00	231	9334710
						0
80	R2-SWD-97	Providing and constructing stormwater drain brick masonry trapezoidal manhole , with internal sizes 1.50 m x 1.20m at bottom and 0.90m x 0.60m at top for a depth 1.20 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including including 300 mm high cap in M-30 grade concrete finishing with cement plaster on both sides in CM 1:1, with necessary centering , shuttering etc. all complete as per	Nos.	34,561.00	914	31588754
						0
81	R2-SWD-98	Extra over no.SWD-97 per meter depth for above manhole above 1.20m upto 2.30m depth.	M.D.	24,259.00	652	15816868
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
82	R2-SWD-105	Providing and constructing stormwater drain brick masonry trapezoidal manhole as per standard drawings (Dwg No. MCGM/SWD/2013-04), with internal sizes 2.40 m x 1.50m at bottom and 0.90m x 0.60m at top for a depth 4.60 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vata all round the external portion of the SWD-105 manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including 300 mm high cap in M-30 grade concrete finishing with cement plaster on both sides in CM 1:1, with necessary centering , shuttering including necessary centering , shuttering	Each	1,79,755.00	227	40804385
						0
83	R2-SWD-106	Extra over item no SWD-105 per meter depth above 4.60m and upto 9.0m , etc complete as specified & as directed by Engineer-in-Charge.	MD	67,187.00	215	14445205
						0
84	R2-SWD-115	Providing and constructing stormwater drain brick masonry rectangular manhole with internal sizes 1.80 m x 1.80m for a depth 2.0 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including RCC slab in cement concrete M-30 grade, 300 mm high RCC cap in M-30 grade cement concrete including reinforcements finished with cement plaster in cement mortar 1:1 both inside and outside including necessary centering , shuttering	Each	99,918.00	162	16186716
						0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
85	R2-SWD-116	Extra over item no SWD-115 per meter depth above 2.0m,etc complete as specified & as directed by Engineer- in-Charge. (Rebate at the same rate will be taken if the depth of manhole is less than 2.0 m.)	M.D.	45,114.00	169	7624266
						0
86	R2-SWD-117	Providing and 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 neat 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. 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 and as per drawing (Dwg No. MCGM/SWD/2013-06), etc complete as	Each	40,697.00	807	32842479
						0
87	R2-SWD-118	Extra over item no SWD-117 per meter depth above 0.60 m and upto 2.5m , etc all complete as specified & as directed by Engineer-in-Charge.	MD	13,530.90	423	5723570.7
						0
88	R2-SWD-119	Providing and Constructing brick masonry 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 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. heavy duty airtight rectangular frame & cover of size 0.9M x 0.45M weighing minimum 270Kg. resting on 300 mm high c.c. cap M 20 with (1:1) cement plaster SWD-119 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 and as per drawing (Dwg No. MCGM/SWD/2013-03), etc complete as specified & as directed by Engineer-in-Charge. (without excavation) .	Each	49,457.43	3820	188927382.6
						0
89	R2-SWD-120	Extra over item no SWD-119 per meter depth above 0.60 m and upto 2.5m , etc all complete as specified & as directed by Engineer-in-Charge.	M.D.	15,442.39	3876.4	59860880.6

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
						0
90	R2-SWD-152	Removing C.I. Frame and cover (any size) and transporting to ward office as directed.	Each	359.00	1905	683895
						0
91	R2-SWD-130	Demolishing existing single or double water entrances, including cutting down of old brick masonry and concrete, removing of all serviceable material such as grating, runner beams, purdis etc. and handing over the same to nearest Municipal depot etc. complete as directed by Engineer-in-Charge..	Each	841.00	5200	4373200
						0
92	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 specified and as directed by Engineer-in-Charge.(excluding excavation, providing and fixing of	Each	11,641.00	10520	122463320
						0
93	R2-SWD-145	Supplying and fixing 0.56m internal dia circular C.I. air-tight 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 conforming to IS 1726:1991.including testing as per CL 10 and inspection as per CL.11 of IS 1726:1991, as per specification as per Standard Specification no SP-SWD-3 etc. complete as	Each	23,096.00	4303	99382088
					0	0
94	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-SWD- 3 with the grade designation of HD 20 conforming to IS 1726:1991.including testing as per CL 10 and inspection as per CL.11 of IS 1726:1991, as per specification as per Standard Specification no SP-SWD-3, etc. complete, as specified and as directed by Engineer in Charge	Each	94,200.00	304	28636800
					0	0
95	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 1726:1991including testing as per CL 10 and inspection as per CL.11 of IS 1726:1991, as per specification as per Standard Specification no SP-SWD-3, etc. complete, as specified and as directed by Engineer in Charge	Each	28,889.00	1462	42235718
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
96	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-SWD- 3 with the grade designation of HD 20 conforming to IS 1726:1991including testing as per CL 10 and inspection as per CL.11 of IS 1726:1991, as per specification as per Standard Specification no SP-SWD- 3 etc. complete as specified and as directed by	Each	31,371.00	5269	165293799
					0	0
97	R2-SWD-175-A	Providing & Fixing 0.60m X 0.50m 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 sample and finished product as per IS standards and as per Standard Specification no SP SWD- 3 and as per drawing (Dwg No. MCGM/SWD/2013-10), etc complete as specified & as directed by Engineer in-Charge.	Each	14,786.00	3333	49281738
					0	0
98	R2-RW-8-01	P/L 150mm dia. R.C.C. hume pipes, NP2 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	R.Mt.	454.00	16636	7552744
					0	0
99	R2-RW-8-02	P/L 250mm dia. R.C.C. hume pipes, NP2 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	R.Mt.	640.00	17228	11025920
					0	0
100	R2-RW-8-03	P/L 300mm dia. R.C.C. hume pipes, NP2 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	R.Mt.	796.00	151530	120617880
					0	0
101	R2-RW-8-04	Providing & fixing in position M-20 cement concrete precast slab, 50cm x 50cm.& 8cm. Thick with the word "DUCT"inscribed over it including making good,the damaged surrounding surface etc. complete.	Nos	326.00	2102	685252
					0	0
102	R2-SE-5-8-a	Providing and laying R.C.C. Pipes (NP3 Class) with rubber rings jointing etc. complete as specified and directed - 300. dia PIPE	R.Mt.	1,823.00	6750	12305250
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
103	R2-SWD-76-A	Providing and laying 450mm dia NP3 Class R.C.C. hume (spigot & socket ended) pipes with rubber ring roll on joints conforming to IS 458:2003 and laid on approved bedding as per IS 783:1985 (reaff. 2010) including jointing the pipes and filleting with stiff mix of cementmortar 1:2, including testing of pipes (in presence of municipal staff) as per IS 3597 etc. complete as specified & as directed by Engineer-in-Charge. (Excluding necessary earthwork & bedding)	R.Mt.	2,985.00	574	1713390
					0	0
104	R2-SWD-78-A	Description same as item no. SWD-76-A, for Pipe Dia 600 mm (NP3 class)	R.Mt.	4,132.00	7997	33043604
					0	0
105	R2-SWD-79-A	Description same as item no. SWD-76-A, for Pipe Dia 700 mm (NP3 class)	R.Mt.	5,052.00	440	2222880
					0	0
106	R2-SWD-80-A	Description same as item no. SWD-76-A, for Pipe Dia800 mm (NP3 class)	R.Mt.	6,410.00	1385	8877850
					0	0
107	R2-SWD-81-A	Description same as item no. SWD-76-A, for Pipe Dia 900 mm (NP3 class)	R.Mt.	7,366.00	5353	39430198
					0	0
108	R2-SWD-82-A	Description same as item no. SWD-76-A, for Pipe Dia 1000 mm (NP3 class)	R.Mt.	8,974.00	1955	17544170
					0	0
109	R2-SWD-83-A	Description same as item no. SWD-76-A, for Pipe Dia 1200 mm (NP3 class)	R.Mt.	11,134.00	2934	32667156
					0	0
110	R2-SWD-84-A	Description same as item no. SWD-76-A, for Pipe Dia 1400 mm (NP3 class)	R.Mt.	11,825.00	1345	15904625
					0	0
111	R2-SWD-85-A	Description same as item no. SWD-76-A, for Pipe Dia 1600 mm (NP3 class)	R.Mt.	14,138.00	762	10773156
					0	0
112	R2-SWD-86-A	Description same as item no. SWD-76-A, for Pipe Dia 1800 mm (NP3 class)	R.Mt.	18,436.00	3012	55529232
					0	0
113	R2-SWD-86-B	Description same as item no. SWD-76-A, for Pipe Dia 2000 mm (NP3 class)	R.Mt.	28,238.00	0	0
					0	0
114	R2-SWD-86-C	Description same as item no. SWD-76-A, for Pipe Dia 2200 mm (NP3 class)	R.Mt.	36,150.00	105	3795750
					0	0
115	R2-SE-5-8r	Providing and laying R.C.C. Pipes (NP3 Class) with rubber rings jointing etc. complete as specified and directed. 2400mm dia pipe	R.Mt.	42,825.00	0	0
					0	0
116	R2-CS-DD-59	Removing and Refixing G.I.pipes of any size with all fittings if necessary complete including cleaning and painting.	R.Mt.	192.00	15425	2961600
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
101-106	R2-HE-7-2	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 labour, necessary excavation, backfilling, giving satisfactory hydraulic test, etc complete in all respect as directed by Engineer in Charge. Note : Only MCGM approved GI pipe brands shall be used, all pipe and pipe fittings shall be C class (heavy grade) having ISI marking.			0	0
					0	0
117	R2-HE-7-2-a	15 mm	R.Mt.	168.00	22966	3858288
					0	0
118	R2-HE-7-2-b	20 mm	R.Mt.	174.00	21146	3679404
					0	0
119	R2-HE-7-2-c	25 mm	R.Mt.	265.00	19721	5226065
					0	0
120	R2-HE-7-2-d	32 mm	R.Mt.	316.00	14213	4491308
					0	0
121	R2-HE-7-2-e	40 mm	R.Mt.	388.00	12908	5008304
					0	0
122	R2-HE-7-2-f	50 mm	R.Mt.	481.00	11418	5492058
					0	0
123	R2-CS-CW-58	Providing and spreading broken glass pieces under the compound pavement as directed at the rate of 1.2 cubic	Sq.Mt.	45.00	199159	8962155
					0	0
124	R2-RW-10-28	Supply & filling sand, metal GRAVELLY SAND Corresponded to CLASS II/ CLASS III GRADING of TABLE 100.1 of new road specifications-2006 in trenches upto required depth & watering, ramming etc. complete as directed	Cu.Mt.	1,905.00	222663	424173015
					0	0
125	R2-RW-10-26	P/L ready mix cement concrete M-15cc having avg compressive strength 18.5 Mpa for foundation/encasement/ pavement/ cradle including form of mixing in batching plant, compacting by internal & surface vibrator, curing, finishing etc. complete as specified & as directed by the Engineer. Contractor has to make his own arrangement for water for curing etc. & will not be paid separately for it. (MINIMUM CEMENT CONTENT 240 Kg/m ³ .)	Cu.Mt.	6,893.00	124950	861280350
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
126	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.	Nos.	445.00	6347	2824415
					0	0
127	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.	Mts.	983.00	39343	38674169
					0	0
128	R2-CS-PS-169-a-2	Constructing brick masonry inspection chamber in cement mortar 1:4 (1 cement : 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 : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :With Sewer bricks conforming to IS : 4885	Each	9782.00	2311	22606202
					0	0
129	R2-CS-PS-169-c-2	Constructing brick masonry inspection chamber in cement mortar 1:4 (1 cement : 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 : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :			0	0
		Inside size 120x90 cm and 90 cm deep including C.I. cover with frame(heavy duty) 560 mm internal diameter, total weight of cover and frame to benot less than 208 kg (weight of cover 108 kg and weight of			0	0
		With Sewer bricks conforming to IS : 4885	Each	26142.00	3067	80177514
					0	0
130	R2-SE-5-1-a	Providing & laying stoneware pipes of SP2 class including jointing with CM(1:1), filleting etc. complete as specified & directed. -150mm	Rmt.	657.00	14299	9394443
					0	0
131	R2-SE-5-1-b	Providing & laying stoneware pipes of SP2 class including jointing with CM(1:1), filleting etc. complete as specified & directed. -230mm	Rmt.	1113.00	18660	20768580

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
					0	0
132	R2-RT-15-02	Removing any type of c.c. tapered kerbs from the existing island etc.& transporting the same any where in the city & suburbs & stacking the same nearby as	Rmt.	100.00	5038.5	503850
					0	0
133	R2-RT-16-34	Supplying / Fixing of Retro reflective road studs conforming to ASTM D_4280 designated 'H' , Two way Reflective markers in any colour inclusive of fixing on any road surface with the use of adhesive as per specifications etc. complete anywhere in Greater Mumbai as directed by the Engineer	Each	427.00	71442	30505734
					0	0
134	R2-RT-16-35	Supplying / Fixing of Retro reflective road studs conforming to ASTM D_4280 designated 'H' , One way Reflective markers in any colour inclusive of fixing on any road surface with the use of adhesive as per specifications etc. complete anywhere in Greater Mumbai as directed by the Engineer	Each	420.00	75696	31792320
					0	0
135	R2-SWD-4	Desilting the nalla upto 3.0 m depth by mechanical means as directed and specified and spreading around/stacking the desilted material for transportation purpose within a distance of 30 m including spreading of disinfectant, etc. complete as directed by Engineer-in-Charge.	Cu.Mt.	198.00	0	0
					0	0
136	R2-RW-10-29	P/L R.M.C.M-20 C.C.having avg. compressive strength 24 Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at worksite, compacting, finishing curing etc. by contractor's water & tarring the sides of from work with hot bitumen as specified & directed by the Engineer.(MINIMUM CEMENT CONTENT 260 Kg/m ³)	Cu.M	7055.00	55246.55	389764410.3
					0	0
137	R2-RW-10-34	P/L R.M.C.M-25C.C.having avg. compressive strength 29 Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at worksite, compacting, finishing curing etc. by contractor's water & tarring the sides of from work with hot bitumen as specified & directed by the Engineer.(MINIMUM CEMENT CONTENT 290 kg/m ³)	Cu.M	7291.00	452	3295532
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
138	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, pardies, coping, fins, arches, etc. as per detailed designs,drawings and bar bending schedules,including straightening, cutting, bending, hooking the bars, binding with wires or tack welding, supporting as required etc. all complete at all levels .-Mild steel bars	Mt	73279.00	2134.5	156414025.5
					0	0
139	R2-CS-CW-35-a	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, hooking the bars, binding with wires or tack welding, supporting as required etc. all complete at all levels .-Mild steel bars	MT	70486.00	410.95	28966221.7
					0	0
140	R2-CS-CW-30-a	centering and shuttering of steel plates with M.S. Angles including strutting, propping etc. and removal of form for :	Sq.Mt.	300.00	1526	457800
					0	0
141	R2-CS-CW-30-b	Walls (any thickness) including attached butteresses, ,retaining wall, shear wall, diaphragm wall etc	Sq.Mt.	558.00	16072	8968176
					0	0
142	R2-RW-11-02	Narrow Filter Sub- Surface Drain (Construction of a narrow filter sub-surface drain consisting of porous or perforated pipe laid in narrow trench surrounded by a geotextile filter fabric, with a minimum of 450 mm overlap of fabric and installed as per clause 702.3 and 309.3.5(MoRTH) including excavation and backfilling)	R.mt.	941.00	1400	1317400
					0	0
143	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 drawing, fixing the dividers on site in C.M. 1:2 for cushioning and jointing, filling the gap between dividers with C.C.M 15, curing, painting the exposed surface with road marking paint grade I (confirming to IS- 164) in two coatss of approved colour including excavation in road portion and removing excavated material as per direction any where in city or suburban limit, cleaning the site etc. as directed by the engineer, The rate is inclusive of all lift and leads, transportation required for the work.	R.Mt.	6403.00	5180	33167540
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
144	R2-RW-10-63	Extra Over item of stencil 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 hardener @ of 3.5 kgs/m2; including floating of colour hardened over concrete surface with different types of floaters; including application of release agent @ of 0.15 kgs/m2, stamping over the concrete surface with stamping tools; including cleaning of surface with water and cutting of finished concrete; including application of two coats of acrylic based sealer for finishing. Colour hardener and release agent shall be tested for abrasion resistance for a depth of wear, should not be more than 0.025 mm. Coverage of sealer should not be more than 6.5 sq.m per one litre coat; including cost of skilled manpower, cutting machine, sprayer and all tools tackles for all activities; complete smooth & finish as per direction of Engineer-In-Charge.	SQM	436.00	261100	113839600
					0	0
145	R2-RW-10-45	Providing & laying M-60 C.C. and having avg. flexural strength of 5.0 MPa in 3 days procured from M.C.G.M.approved R.M.C. plant including use of Microsilica approved make of superplasticizer and transported by transit mixer and placing at work site. Compacting, finishing, initial curing by approved curing compound & Contractor's water and tarring the sides of slab with hot bitumen as specified and directed (w/c ratio 0.35 maximum)(vata for curring will be paid separately.) NOTE: THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)NOTE: FOR SPECIAL ADMIXTURES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPELYNE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALLAN SHOULD BE PRODUCED, FAILING WHICH NO PAYMENT TO BE MAD	Cu.Mt.	9828.00	913	8972964
					0	0
146	FA-TR-2018-06	Providing & fixing 120mm dia x 1200mm Ht. A.C. Reflector of outer body is 9mm to 10mm thickness of Asbestos Cement and inside filled with cement concrete. The upper portion having 2 strips of 50mm high HIP Retro Reflective Sheet (Type 04) as per IRC-79-1981. The minimum gross weight is about 36Kg and painted	Nos.	2626.00	32	84032
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
147	R2-RW-10-53	Green cutting of construction & dummy joints of M-40 C.C.& above (Ultra thin white topping) slab by mechanical means within period of concrete strength @ 80 to 100 kg/ cm ² or earlier, casting of bay/ slab as directed. Transverse dummy & Longitudinal construction joints 1/2	Rmt	51.00	0	0
					0	0
148	R2-CS-SS-06-c	Providing and fixing the Mechanical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning and anchoring the bolt as per manufacturers specifications etc. complete as directed by Engineer In Charge.	Nos.	65.00	2800	182000
					0	0
149	R2-RW-10-20	Resealing of joints of M-35 & above C.C. old pavement with hot applied sealing compounds confirming to IS-1834-1984 including cutting & removing existing damaged sealing compound by racking tool or mechanical means & clearing of joints with compressed air, application of primer for receiving hot sealing compound & providing layer of lime powder over hot sealing compound etc. complete as directed. A) Resealing 6mm-10mm wide transverse /longitudinal joints with Avg depth of 40mm	Rmt	66.00	0	0
					0	0
150	R2-RW-10-21	Resealing of joints of M-35 & above C.C. old pavement with hot applied sealing compounds confirming to IS-1834-1984 including cutting & removing existing damaged sealing compound by racking tool or mechanical means & clearing of joints with compressed air, application of primer for receiving hot sealing compound & providing layer of lime powder over hot sealing compound etc. complete as directed. B) Resealing 11-15mm wide transverse /longitudinal joints with average depth of 40mm	Rmt	83.00	5000	415000
					0	0
151	R2-RW-10-22	Resealing of joints of M-35& above C.C. old pavement with hot applied sealing compounds confirming to IS-1834-1984 including cutting & removing existing damaged sealing compound by racking tool or mechanical means & clearing of joints with compressed air, application of primer for receiving hot sealing compound & providing layer of lime powder over hot sealing compound etc. complete as directed. C)Resealing of 12-25mm wide expansion joints with Avg. depth of 25mm	Rmt	74.00	5000	370000
					0	0
152	R2-RW-12-12	Repair of joint Grooves with Epoxy Mortar Repair of spalled joint grooves of contraction joints, longitudinal joints and expansion joints in concrete pavements using epoxy mortar or epoxy concrete)	Rmt	2325.00	7700	17902500
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
153	R2-RW-12-13	Repair of old Joints Sealant (Removal of existing sealant and re sealing of contraction, longitudinal or expansion joints in concrete pavement with fresh	Rmt	58.00	0	0
					0	0
154	R2-RW-10-39	Extra & over for providing and using special admittures/ plasticizers to achieve required crushing & Average flexural strength 5.0 Mpa of M40 grade concrete in 7 days.	Cum	1067.00	182592.7535	194826468
					0	0
155	R2-RW-10-40	Extra over above for mixing polypropylene fibers 300 e3 Multi-Dimensional Graded Fibrillated 100% Vergin as per ASTM C 1116 III Type 4.1.3 Std. at the rate of 125	Cum	439.00	113995.7535	50044135.79
					0	0
156	R2-HE-8-27-a	Cutting of existing cement concrete road upto specified depth by using Diamond Saw machine etc. complete in all respects and as directed by Engineer In Charge. Note : The charges for supplying water and electricity are exclusive of the rate worked out.:- Upto 350 mm depth of cutting	Rmt.	1486.00	5034.5	7481267
					0	0
157	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 directed by the Engineer. Contractors has to make his own arrangement of water for curing with Hessian cloth etc. & will not be paid separately. (MINIMUM CEMENT CONTENT 220 Kg/m ³)	Cum	6452	20026	129207752
					0	0
158	R2-HE-1-6-C	Providing & Supplying, loading, transporting on site, unloading, lowering in trenches, assembling and jointing Ductile Iron pipes K-9) including chamfering cut edges of pipes and specials and fixing with Styrene Butadiene Rubber (SBR) Ring Gaskets for following diameters (Tyton joint pipes). The pipe shall confirm IS : 8329 & SBR Ring Gasket shall confirm IS : 5382 & IS : 12820 The rate IS inclusive of cleaning, flushing & testing of water mains upto 6 kg/sq.cm etC complete in all respect and a. directed by Engineer in Charge (Pipe shall be coated with cement mortar lining from inside and zine coating followed by bitumen coating from outside as specified)			0	0
		150 mm	Rmt	1689	1640	2769960
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
159	R2-SWD-178	Providing & placing in position controlled 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. (Reinforcement & Formwork shall be paid separately).	CUM	7777	13595.95	105735703.2
					0	0
160	R2-SWD-179	"Providing & placing in position controlled 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 complete as directed by Engineer in Charge. (Reinforcement & Formwork shall be paid separately)."	CUM	9569	34954.85	334482959.7
					0	0
161	R2-CS-RF-7-B	Leak-proof Shuttering for Encasement: 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 / concrete. Providing & applying approved oil on all surfaces of formwork coming in contact with concrete as per specification. WALLS (any thickness including attached butteresses, retaining wall shear wall, diaphragm wall etc	SQM	558	223748	124851384
					0	0
162	R2-CS-RF-F	Leak-proof Shuttering for Encasement: 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 / concrete. Providing & applying approved oil on all surfaces of formwork coming in contact with concrete as per specification. stairs (waist slab folded slab, inclined slab)	SQM	483	51556	24901548
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
163	R2-RW-3-30	Providing & fixing in the footpath Concrete Paver blocks 100X100X60mm thick or any approved size in grey or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crushing strength not less than 50 N/mm ² as per technical specification and IS CODE 15658:2006 manufactured in double layer precast concrete Paver blocks 12 to 15 mm thick top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve, silica sand. The bottom layer should be 65 to 68 mm thick in grey cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average compacted thickness 25 mm well graded sand cushioning uniformly compacted with proper capacity mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer	Sq.Mt.	1058	167	176686
					0	0
164	R2-RW-5-04	P/L MINIMUM 30 mm hot Premix Bituminous concrete with 6.00% of VG- 30 grade bitumen using new material any where as directed including Rolling with 10 MT Pneumatic, power & vibratory roller & using sensor paver to the required grades, level, camber with line filler of 2% by weight & antistripping agent @ 1% of bitumen content by weight etc. complete. (As per prevailing MCGM specification for Roadworks clause no.364)	Sqm	339	24698	8372622
					0	0
165	FA-TR-2018-06	Providing and fixing Bollard Sign Board fixed with HIP Retro reflective sheet (type 04) As per IRC-79-1981, fitted on 120mm dia x 1200 mm Ht of 9mm to 10mm thick of Asbestos Cement body and inside filled with Cement Concrete. The minimum gross weight is about 30kg.	Nos.	2626	100	262600
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
166	R2-SWD-111	Providing and constructing stormwater drain brick masonry rectangular manhole with internal sizes 2.40 m x 1.80m for a depth 2.40 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm wide vataall round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including RCC slab in cement concrete M-30 grade, 300mm high RCC cap in M-30 grade cement concrete including reinforcements finished with cement plaster in cement mortar 1:1 both inside and outside including necessary centering , shuttering etc. all complete	EA	151263	47	7109361
					0	0
167	R2-SWD-112	Extra over item no R2-SWD-111 per meter depth above 2.40m including additional safety chain per meter depth ,etc complete as specified & as directed by Engineer in Charge. (Rebate at the same rate will be taken if the depth of manhole is less than 2.40 m)	MTR	60454	36.7	2218661.8
					0	0
168	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, pardies, coping, fins, arches, etc. as per detailed designs, drawings and bar bending schedules,including straightening, cutting, bending, hooking the bars, binding with wires or tack welding, supporting as required etc. all complete at all levels. Corrosion Resistant Steel (500 CRS D)	MT	76770	5499	422158230
					0	0
169	R2-BW-5-3-f	Providing and applying protective paint consisting of two coats of coal tar epoxy paint over one coat of primer of approved quality and make to the external surfaces of concrete structures to be buried under the soil etc. complete as specified and directed.	Sqm	281	97307	27343267
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
170	R2-RW-10-32	Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150 kg/cum of concrete with OPC 43 grade cement, mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying and compacting with vibratory roller of minimum 80- 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as directed by the Engineer. A)	Cu.Mt.	4481.00	52943	237237583
					0	0
171	R2-RW-10-60	Providing and fixing of the precast kerb stone of height 325mm., base width 165mm., top width 115mm.in M20grade RMCsupplied through MCGM approved plant or concrete mixed with use of weigh batch mixers as detailed in drawing/No.Dy.Ch.E./Rds/93/E.S. of 17/8 / 2005, excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or any shade as directed.(Kerbstones shall be procured from MCGM registered agencies).	Rmt .	605.00	46135	27911675
					0	0
172	R2-RW-10-61	Providing and fixing of the precast tapered water table of thickness varying from 105 to 125 mm., 300mm. Width in M 20grade RMC (Supplied through MCGM approved plant) or concrete mixed with use of weigh batch mixers as detailed in drawing No.DyChE/Rds/94/E.S. dated 17.8.2005 inclusive of excavation in any soil except rock, laying of leveling course of M 15 grade RMC 100mm. thick to required slope, (inclusive of form work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Watertables shall be procured from MCGM registered agencies)	Rmt .	471.00	11028	5194188
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
173	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 the certificate of galvanising from the Galvaniser.) including testing ,inspection of material sample and finished product in presence of M.C.G.M. Engineers (3 nos.) at Manufacturers works, as per Standard Specification no SP-SWD-3 and as per drawing (Dwg No. MCGM/SWD/2013-03), etc complete as specified & as directed by Engineer in Charge	Each	9441.00	7764	73299924
					0	0
174	R2-RT-16-02	Providing, fabricating and fixing M.S. railing 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 painting with navy blue colour or any other approved colour shades as directed and fixing in cement concrete foundation as shown vide Sr.No. 2F-A1 in catalogue of street Furniture (Vol.I) published by MCGM including removal of surplus material/debris material. debries and restoring damaged portion of footpath etc. as directed (without advertisement panel)	R.Mt.	7121.00	210	1495410
					0	0
175	R2-RT-16-02-C	Add for application for Rusticide for removal of rust and providing rust preventing treatment of electrometric Alkaline Polymerie, rust preventing solution as per Manufacturer's specification. Coating with rusticide and polyurethane primer and paint	R.Mt.	1210.00	950	1149500
					0	0
176	R2-RW-10-47	Providing and fixing pre-cast Central Median divider Type C TREE PLANTER(in pair as per drawing) of R.M.C.M 25 C.C. on Road as per drawing, finished neatly, compacting, curing, form work, etc, including Reinforcement as per drawing, bedding R.M.C.M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2& painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer. (Note:-Every 10 dividers shall have 40 mm. dia. hole along the center line of divider at formation level of road to drain off rain water / excess water.)	Rmt .	4231.00	9710	41083010
					0	0
177	R2-SWD-141	Constructing double water entrance of internal size 0.60m x 1.20m with cast-in-situ coping in M-20 grade, fixing gratings in M -20 as per standard drawings (Dwg No. MCGM/SWD/2013-13), etc complete as specified and as directed by Engineer in Charge. (excluding excavation, providing and fixing of gratings and frame)	Each	17168.00	1090	18713120

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
					0	0
178	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 contractor shall furnish the certificate of galvanising from the Galvaniser.) including testing ,inspection of material sample and finished product as per IS standards and as per Standard Specification no SP-SWD-3 and as per standard drawing , etc complete as specified & as directed by Engineer in Charge	Each	17084.00	782	13359688
					0	0
179	R2-GW-7-	Supply/ stacking/spreading of red hill earth	Cu.M	1058.00	2645	2798410
					0	0
180	R2-HE-2-16	Providing and fixingMS frame and cover with its complete assembly as per item	Kg	78.00	121125	9447750
					0	0
181	R2-CS-EW-5	Excavation by using splitters for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits & general building works in hard rock, reinforced concrete, for depths/lifts upto 1.5M, including drilling, breaking in small pieces, mucking, 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 then 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 by Engineer-in-Charge, loading, unloading, leveling excluding shoring, strutting etc. complete. Note: 1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc.	Cu.M	3104.00	1240	3848960
					0	0
182	R2-CS-CW-7-a	Foundations, footings, bases of columns, rafts, pilecap	Cum	7515.00	6925	52041375
					0	0
183	R2-CS-CW-7-b	Walls (any thickness) including attached buttresses, retaining wall, shear wall, diaphragm wall , trench,pit walls, etc	Cum	10518.00	9809	103171062
					0	0
184	R2-CS-CW-7-c	Slabs, Suspended floors, roofs, landings, balconies, canopy and access platform	Cum	11790.00	6010	70857900
					0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
185	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) including jointing the pipes and filleting with hemp and stiff mix of cement mortar 1:2, including testing of pipes at contractors costs (in presence of municipal staff) as per IS 3597 etc. complete as specified & as directed by Engineer in Charge. (excluding necessary earthwork & bedding)	Mtr	2041.00	842	1718522
					0	0
186	R2-CS-EW-8	Add for lead upto 3 km including levelling. Note: Prior Specific sanction of Head of Dept. should be taken if transportation is to be done at night for above items, (i.e. between 8.00 pm. to 6 am.) and the rate shall be reduced by 10%. This item will be operated/executed with the specific sanction of the Chief Engineer.	Cu.Mt.	146	0	0
187	R2-CS-EW-9	Add for each additional lead of 1km beyond initial lead of 3km including levelling. Note : Prior Specific sanction of Head of Dept. should be taken if transportation is to be done at night for above items, (i.e. between 8.00 pm. to 6 am.) and the rate shall be reduced by 10%. This item will be operated/executed with the specific sanction of the Chief Engineer .	Cu.Mt.	30	0	0
188	R2-RW-1-05	Levelling, watering and rolling to 95% Standard Proctor Density with a power roller weighing not less than 10 tonnes and preparing the ground to the required grade and camber as specified as directed by the Engineer	Sq.Mt.	9.27	137106	1270972.62
189	R2-RW-1-17	Extra for using vibratory Roller instead of power roller for compaction as per New Road Specifications	Sqm	1	22986	22986
190	R2-RW-3-28	Providing & fixing in the footpath Concrete Paver blocks 200X200X60mm thick or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crushing strength 40 N/mm ² manufactured in double layer precast concrete Paver blocks 12 to 15 mm thick in top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.	Sq.Mt.	1042	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
191	R2-RW-3-29	Providing & fixing in the footpath Concrete Paver blocks 200X200X80mm thick or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crushing strength 50 N/mm ² manufactured in double layer precast concrete Paver blocks 12 to 15 mm thick top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 65 to 68 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.	Sq.Mt.	1717	0	0
192	R2-RW-4-03	Removing existing kerb stones, cleaning off old mortar, carting away up to a distance of 2 K.M. and stacking the same as directed.	Rmt .	32	1866	59712
193	R2-RW-4-04	Extra over and above for an additional distance of every 2 K.M. or part thereof.	Rmt .	5	0	0
194	R2-RW-4-05	Cement pointing to existing kerb stones after taking out old mortar to a depth of 20 mm. including filling the joints with cement mortar 1:2 and curing etc. complete	Rmt .	20	0	0
195	R2-RW-4-08	Removing existing water tables/cleaning off old mortar & carting away to the distance of 2 K.M. and stacking the same as directed.	Rmt .	32	0	0
196	R2-RW-4-09	Extra over and above for an additional distance of every 2 K.M. or part thereof.	Rmt .	2.5	0	0
197	R2-RW-7-09	Milling upto 60mm. Depth Asphaltic surface by using milling machine including transportation anywhere as directed. NOTE: For further passes of 60mm. Or part thereof, same rate will be applicable.	Sqm	77	8765	674905
198	R2-RW-5-46	P/L hot Premix Dense bituminous macadam with 4.50% bitumen content of grade 30-40 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 to required thickness. with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause	Cu.m	9008	834	7512672
199	R2-RW-5-44	P/L hot Premix Dense bituminous macadam with 4.50% bitumen content of grade 30-40 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 to thickness of 50 mm. with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354)	Sqm	450	10185	4583250

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
200	R2-RW-7-51	P/f Polyethylene plastic water/sand fillable Barricades having approx. size 2000mm. X 560mm. X 1000mm., (LxWxD), 20- 23 Kgs empty wt. and tank capacity 80-100 lits., manufactured by M/s. B.D. Industries or equivalent ISO Certified Company having minimum experience of 3 years in manufacturing and supplying to the Govt./Semi Govt./Other reputed organisations alongwith necessary fixing and interlocking arrangement as specified and directed by the Engineer Incharge.	R.Mt.	366	0	0
201	R2-RW-7-50	P/f Polyethylene plastic water/sand fillable Metro Barricades having approx. size 1840mm. X 440mm. X 1900mm., (LxWxD), 32-35 Kgs empty wt. and tank capacity 100-120 lits., manufactured by M/s. B.D. Industries or equivalent ISO Certified Company having minimum experience of 3 years in manufacturing and supplying to the Govt./Semi Govt./Other reputed organisations alongwith necessary fixing arrangement as specified and directed by the Engineer Incharge	R.Mt.	547	0	0
202	R2-RW-7-45	Providing and fixing the barricading in double row with G.I. Sheets of 22 guage manufactured by TATA Co. and JINDAL Co. fixed on 3 inch dia. (75mm.) woden bullies which will be buried in existing road suffiecently. Embossing of TATA/JINDAL Brand on G.I. Sheet shall be ensured before painting with yellow and black bands of Synthetic enamel paint as per the traffic norms and as directed by the Engineer.	R.Mt.	570	0	0
203	R2-RT-16-01	Providing and fabricating and fixing M.S. railing of 10 Gauge,40mmx40mm square pipe railing with 18 mm x 18 mm square intermediate suppoert, 65mm x 65mm square main supports with M.S.pedestal (base- I type) and M.S. cap-(type-I) including cutting,welding,riveting,oil painting with navy blue colour or any other approved colour shads as directed and fixing in cement concrete foundation as shown vide Sr.No.2F-A1 in catalogue of Street Fumiture (Vol.I) published by M.C.G.M. including removal of surplus material/debris and restoring damaged portion of footpath, etc.as directed. (Without advertisement panel)	R.Mt.	7596	1230	9343080
204	R2-RT-16-01-a	Add for providing Aluminium Pedestal and Aluminium Caps in place of M.S. Pedestal and M.S. Cap if provided.	R.Mt.	249	1080	268920
205	R2-RT-16-01-b	Add for providing FRP Pedestal and FRP cap in place of M.S. Pedestal and M.S. Cap if approved	R.Mt.	499	1080	538920
206	R2-RT-16-01-c	Add for application for rusticide with rust preventing treatment of electromeltic alkaline polymereie.	R.Mt.	1210	1080	1306800
207	R2-RT-16-01-d	Add for advertisement panel for advertisement , if provided.	R.Mt.	233	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
208	R2-SWD-197-A	Providing and fixing 0.56m internal dia circular air tight composite resin manhole cover and frame of approved brand with grade designation D400 as per EN-124 standard with bolt and lever type locking arrangement. Covers & frame shall have top abrasion resistant layer conforming to IS-15658:2006 and permissible permanent set value of 1.9 mm after the application of 2/3 test load in five continuous applications as per EN-124, the testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN-124 standard, including testing ,inspection of material sample and finished product in presence of M.C.G.M. Engineers (3 nos.) at Manufacturer's work , etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of IS and EN- 124 standard specifications.)	Each	25902	1	25902
209	R2-SWD-198	Providing and fixing 1.2m x 0.90m internal size rectangular air tight composite resin manhole cover and frame of approved brand with grade designation C250 as per EN-124 standard with bolt and lever type locking arrangement. Covers & frame shall have top abrasion resistant layer conforming to IS-15658:2006 and permissible permanent set value of 2 mm after the application of 2/3 test load in five continuous applications as per EN-124, the testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN 124 standard, including testing ,inspection of material sample and finished product in presence of M.C.G.M. Engineers (3 nos.) at Manufacturer's work , etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of IS and EN-124 standard specifications.)	Each	61979	1	61979
210	R2-SWD-199	Providing and fixing 0.90m x 0.45m internal size rectangular air tight composite resin manhole cover and frame of approved brand with grade designation C250 as per EN-124 standard with bolt and lever type locking arrangement. Covers & frame shall have top abrasion resistant layer conforming to IS-15658:2006 and permissible permanent set value of 1.5 mm after the application of 2/3 test load in five continuous applications as per EN-124, the testing shall be performed in fully equipped and NABL certified test lab with random batch test (2%of lot size) as per testing procedure stated in EN-124 standard, including testing ,inspection of material sample and finished product in presence of M.C.G.M. Engineers (3 nos.) at Manufacturer's work , etc. complete as specified and as directed by Engineer-in-Charge.(Inspection shall be as per guidelines of IS and EN-124 standard specifications.)including fixing with M-30 concrete and locking arrangement ,as per specification no SP SWD-3 etc. complete as specified and as directed by Engineer-in-Charge.	Each	23930	1	23930

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
211	R2-SWD-200	Providing and fixing 0.90m x 0.60m internal size rectangular air tight composite resin manhole cover and frame of approved brand with grade designation C250 as per EN-124 standard with bolt and lever type locking arrangement. Covers & frame shall have top abrasion resistant layer conforming to IS-15658:2006 and permissible permanent set value of 2 mm after the application of 2/3 test load in five continuous applications as per EN-124, the testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN-124 standard, including testing, inspection of material sample and finished product in presence of M.C.G.M. Engineers (3 nos.) at Manufacturer's work, etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of IS and EN-124 standard specifications.)	Each	30247	1	30247
212	R2-SWD-74	Providing and laying 300mm 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) including jointing the pipes and filleting with hemp and stiff mix of cement mortar 1:2, including testing of pipes at contractor's costs (in presence of municipal staff) as per IS 3597 etc. complete as specified & as directed by Engineer-in-Charge. (excluding	R.Mt.	1180	4993	5891740
213		Description same as item no. SWD-76-A, for Pipe Dia 2100 mm (NP3 class)	R.Mt.	16828	0	0
214		Description same as item no. SWD-76-A, for Pipe Dia 2400 mm (NP3 class)	R.Mt.	22595	0	0
215	R2-SWD-107	Constructing brick masonry scraper type manhole on storm water drain 2.40 M x 1.50 M at bottom 1.20 M x 0.90 M at top upto a depth 4.6M, and built in brick masonry in C.M. 1:2 plastered both inside and outside with 20 mm thick cement plaster in C.M. 1:1 and neat cement rendering so as to give a smooth surface 300 mm thick M 15 cement concrete foundation and in haunches and finished smooth with 20 mm cement plaster in C.M. 1:1 and providing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c including 75 mm wide vata all round the external portion of the manhole and foundation concrete in cement mortar 1:1 and supporting the incoming pipes with brick masonry wherever necessary including 300 mm high cap in M-30 grade concrete finishing with cement plaster on both sides in CM 1:1, etc complete as per standard drawings (Dwg No. MCGM/SWD/2013-04), and /or as specified & as as directed by Engineer-in-Charge, excluding cost of excavation, providing & fixing frame and covers.	Each	186371	0	0
216	R2-SWD-108	Extra over item no SWD-107 per meter depth above 4.60m and upto 9.0m, etc complete as specified & as directed by Engineer-in-Charge	M.D.	66347	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
217	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-SWD-3 with the grade designation of HD 20 conforming to IS 1726:1991.including testing as per CL 10 and inspection as per CL.11 of IS 1726:1991, as per specification as per Standard Specification no SP-SWD-3, etc. complete, as specified and as directed by Engineer-in- Charge.	Each	94200	169	15919800
218	R2-SWD-99	Providing and constructing stormwater drain brick masonry scraper manhole ,with internal sizes 1.50 m x 1.50m at bottom and 1.20m x 0.90m at top for a depth 2.90 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 0.30 m thick M-15 grade cement concrete in foundation as per IS 4111: Part 1:1986 Cl.4.2 and M-15 grade in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm c/c, including 75 mm 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 0.30m high cap in M-30 grade concrete finished with necessary centering , shuttering etc. all complete as	Each	113244	96	10871424
219	R2-SWD-100	Extra over item no SWD-99 per meter depth above 2.9 m and upto 5.0 m, etc complete as specified and as directed by Engineer-in-Charge	MD	39816	48	1911168
220	R2-SWD-182-B	Supplying and fixing 0.56m internal dia D.I. air-tight hinged type cover and frame (weighing minimum 95 kg.) of material grade SG-500/7 as per IS 1865-1991with grade designation of D400 as per EN-124, specification no SP-SWD-3 , including testing and inspection as per guidelines of IS specifications, including fixing with M-30 concrete and locking arrangement etc. complete as specified and as directed by	Each	11657	462	5385534
221	R2-SWD-185-A	Supplying and fixing 0.90m x 0.60m internal size rectangular D.I. airtight hinged type cover and frame (weighing minimum 150 kg.) of material grade SG-500/7 as per IS 1865-1991with grade designation of C250 as per EN-124, specification no XX, including testing and inspection as per guidelines of IS specifications, including fixing with M-30 concrete and locking arrangement etc. complete as specified and	Each	26668	630	16800840

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
222	R2-SWD-184-B	Supplying and fixing 0.90m x 0.45m internal size rectangular D.I. airtight hinged type cover and frame (weighing minimum 160 kg.) of material grade SG-500/7 as per IS 1865-1991 with grade designation of D400 as per EN-124, specification no SP-SWD-3, including testing and inspection as per guidelines of IS specifications, including fixing with M-30 concrete and locking arrangement etc. complete as	Each	28203	298	8404494
223	R2-RT-16-39	Supplying / Fixing of Retro reflective road studs conforming to ASTM D_4280 designated 'H', Two way Reflective markers in any colour inclusive of fixing on any road surface with the use of adhesive as per specifications etc. complete anywhere	Each	204	3930	801720
224	R2-RT-16-40	Supplying / Fixing of Retro reflective road studs conforming to ASTM D_4280 designated 'H', One way Reflective markers in any colour inclusive of fixing on any road surface with the use of adhesive as per specifications etc. complete anywhere	Each	204	8164	1665456
225		Applying of lime and geru(snosem) on the stem upto the height of 3 feet (i.e. 1 ft lime , 1 ft geru(snosem) , 1ft lime from the ground level			0	0
226	R2-GW-8-24	Tree trunk dia. 2 ft and below	Each	20	0	0
227	R2-GW-8-25	Tree trunk dia. 2 ft to 5 ft	Each	27	0	0
228	R2-GW-8-26	Tree trunk dia. Above 5 ft	Each	70	0	0
229	FMG-YH-2D	Tree trunk of dia. 3 ft to 4 ft	Each	55.2	0	0
230	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.)		1064	14988	15947232
231	R2-RT-15-14	Fixing R.C.C parabolic dividers, available on site as per Drg . EET&C/Gen/013/03Ty dt 11.12.03 (Revised on 15.06.2006) painting the exposed surface with road marking paint grade-I (confirming to IS- 164) in two coats of approved colour including excavation in any material except rock / concrete road and removing excavated material as per direction anywhere in city or suburban limit, cleaning the site etc as directed by engineer , The rate is inclusive of all lift and leads etc complete as directed	Rmt	1351	100	135100

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
232	R2-RT-16-37	Providing and applying hot 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-I & II 1989 and carrying out the marking on any road on center line and other lane marking continuous for intermittent 10cm or 15cm width and also pedestrian crossings stripes as well as spraying further quality of glass beads of type II uniformly into a mono layer on to the hot paint line in quick succession of the paint spraying operation @ 250gms per sq.mt. area as directed and as per B.S./M.O.S.T. specification in White /Yellow colour.	Rmt	70	214	14980
233	R2-RW-5-40	P/L hot 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 paver, etc.complete as specified and as directed with lime filler 5.00%by weight and antistripping agent @ 1% of bitumen by weight etc. complete .As per new Road Specification clause no.364)	Sqm	450	4470	2011500
234	R2-CS-CW-30-c	Centering and shuttering of steel plates with M.S. Angles including strutting, propping etc. and removal of form for : Suspended floors, roofs, landings, balconies and access platform.	Sqm	568	5730	3254640
235	R1-SE-1-4-a	P/F Shoring in Trenchs	Cum	6754	1424	9617696
236	R1-SE-1-5-a	20%of item no 3 i.e.SE-1-4-a	Cum	10103	285	2879355
237	R2-RW-10-48	Providing and fixing pre-cast Central Median divider Type NPD-1 of R.M.C.M-25 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including Reinforcement as per drawing,beding R.M.C.M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer.	Rmt	5455	720	3927600

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
238	R2-CS-SS-01	Providing, detailing, fabricating and fixing at desired location using hot rolled sections and MS Plates of grade Fe 250 as per specifications and approved fabrication drawings (which are to be prepared by Contractor and got approved from Engineer), transporting to site and 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 fixtures and 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. (The qty. for this item shall be measured for gusset plates, base plates, bolts in M.T.)	MT	80088	2	160176
239	R2-CS-SS-02	Providing, detailing, fabricating and fixing built up sections at desired location using MS Plates of grade Fe 250 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.	MT	80216	2	160432
240	R2-RW-10-57	Extra over above RW-10-33M-40 C.C. and Avg. Flexural Strength of 5.0MPa in 7 days procured from M.C.G.M. approved R.M.C. plant including use of Microsilica, (MCGM Registration manufacturer) superplasticizer and fiber, transported by transit mixer and placing at work site. Compacting finishing, initial curing by approved curing compound Contractors water and tarring the sides of slab with hot bitumen as specified and directed (w/c ratio 0.30 maximum) (vata for curing & fibre will be paid separately.) (NOTE: 1) THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR (E.S. & P.) 2) FOR SPECIAL ADMIXTURES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPYLENE FIBER, BSFGLANIUM SKY, EARLY STRENGTH SUPER PLASTICIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED, FAILING WHICH NO PAYMENT TO	Cum	3067	24859	76242553

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
241	R2-BW-1-09	Providing and transporting to site necessary and adequate plant and equipment for taking trial bores for subsoil investigations including conducting an initial survey for establishing datum RLS and locations of trial bores including installation of the drilling equipment of the first bore location etc. complete as specified and directed with reference to T.H.D	Each Unit	49500	1	49500
242	R2-BW-1-10	Shifting and locating the drilling equipment from one location to another within a lead of 500 m between successive locations including surveying the spot for establishing bore hole location, fixing ground levels with reference to datum RLS and observing ground water level during boring operation etc. complete as specified and directed.	Each Unit	3850	1	3850
243	R2-BW-1-11 A	Taking trial bores upto 150 mm dia. for subsoil investigation through overburden and soil of all sorts including cleaning the bottom of holes before taking field tests at various depths etc. complete as specified and directed. Depth upto 6.0 m below ground surface	Rmt	1760	18	31680
244	R2-BW-1-11 B	Taking trial bores upto 150 mm dia. for subsoil investigation through overburden and soil of all sorts including cleaning the bottom of holes before taking field tests at various depths etc. complete as specified and directed. Depth beyond 6.0 m upto 20.0 m below ground surface	Rmt	2310	42	97020
245	R2-BW-1-12 A	Taking trial bore for sub soil investigation through rock using	RMT	2750	12	33000
246	R2-BW-1-12 B	Taking trial bores for subsoil investigation through rock using rotary drilling equipment with NX size diamond core drilling bits to obtain approximately 54 mm dia. rock cores including provision of wooden boxes for storage of cores, indexing the core samples at site of work and conveying the same to the head quarters of concerned office etc. -complete as specified and directed. Depth beyond 10.0 m upto 20.00 m below ground surface	Rmt	3080	30	92400
247	R2-BW-1-12 C	Taking trial bore for sub soil investigation through rock using rotary drilling equipment with NX 20-30	Rmt	3300	0	0
248	R2-BW-1-14	Conducting Standard penetration test as per Specifications in soil at various levels of bore holes and reporting the results in the approved format etc. complete as specified and directed	No	330	0	0
249	R2-BW-1-15 A	Collecting disturbed samples of soil from bore holes as per specifications and delivering the same to the testing laboratory anywhere in Greater Mumbai as directed etc. complete as specified and directed. In M.S. Black tube 50 mm dia 150 mm. long including the cost of tube	No	330	10	3300

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
250	R2-BW-1-16	Collecting undisturbed samples of soil as per specifications at any depth in M.S. black tube 100 mm dia. 450 mm long, sealed at both ends with paraffin wax and delivering the same to the testing laboratory anywhere in Greater Mumbai etc. complete as specified and directed.	No	495	0	0
251	R2-BW-1-17	Collecting soil samples and sub-soil water samples in glass or plastic bottles / jars from trial bore holes and getting the same chemically analyzed in an approved laboratory for determination of sulphate and chloride contents and pH value etc. complete as specified and	No	110	10	1100
252	R2-BW-1-18	Carrying out Plate Load Test complete with necessary and adequate Kentledge loads, equipments and instruments etc. as per specifications for determination of bearing capacity of soil etc. complete as specified and directed and submitting reports in duplicate.	No	82500	0	0
253	R2-BW-1-19	Preparing and submitting reports and drawings in triplicate for location depth and details of underground pipe lines, cables and services as existing according to standard technique as specified upto whatever depth of excavation and including all equipment, material, and labour of technical expertise as directed excluding excavation.	each trench	16500	0	0
254	R2-BW-1-21-A	Carrying out tests as per specifications for determination of: Natural moisture Content (NMC) of soil by Oven Drying method & Atterberg limits	No	165	0	0
255	R2-BW-1-21-B	Carrying out tests as per specifications for determination of: Liquid limit	No	165	0	0
256	R2-BW-1-21-C	Carrying out tests as per specifications for determination of: Plastic limit	No	165	0	0
257	R2-BW-1-21-D	Carrying out tests as per specifications for determination of: Shrinkage limit	No	165	0	0
258	R2-BW-1-21-F	Grain size analysis including grain size distribution curves in accordance with IS 2720 (part 4) Hydrometer Analysis	No	330	0	0
259	R2-BW-1-21-I	Unconfined compressive strength of rock samples, including determination of percentage of water absorption and density.	No	550	0	0
260	R2-BW-1-22	Carrying out Vane Shear Test at various levels of bore holes as per specifications laid down in IS:4434 and reporting results thereof as per prescribed proforma etc. complete as specified and directed. (Including mobilization of necessary and adequate equipment)	No	13200	0	0
261	R2-BW-2-40	Providing and constructing one span service road to reach island location from one pier location to another pier location	Rmt	2683	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
262	R2-CS-PLG-1-1-H	Providing and Casting RCC bored cast in-situ Vertical as per IS 2911 (Part 1, Section 2) by boring through all kinds of soils/ Sand /Rock by rotary hydraulic rigs using temporary casing up to stable strata / bentonite mud circulation as specified, from tip to cut-off elevation of piles. Reinforced Cement Concrete work of filling the bore (after placement of reinforcement cage as per drawing) with M25 grade Ready Mix Concrete using 43 Grade Ordinary Portland Cement confirming to IS : 8112, of approved make and brand with minimum cement content of 400 kg/m ³ and with water - cement ratio, including the water contained in aggregates (10mm to max 20mm size), not exceeding 0.45, with approved plasticizer as specified, including placing of concrete from tip to minimum of 600mm above the specified cutoff level, breaking pile head to cutoff level and exposing pile reinforcement for embedment in pile cap, Disposing & levelling of bored/ excavated material suitably at locations approved by the local authorities including all lead and lifts, all complete for piles having diameter of (Pile	Rmt	11583	547	6335901
263	R2-CS-PLG-2-4-L	Extra over rate for items CS-PLG-1 & 2 for using M40 instead of M 25 sulphate resistant :900mm	Rmt	677	547	370319
264	R2-BW-2-36	Providing and installing in position permanent M.S. liners for piles of specified diameter and fabricated from 6.0 to 8.0mm thick plates as per detailed drawings and designs including cutting, bending to required shape, welding, painting with Red Oxide paint etc. complete as specified and directed	MT	73417	90	6607530
265	R2-BW-5-6-G	Carrying out load test upto 1.50 times the design load on any vertical pile selected by Engineer-in-charge as per the procedure and specifications laid down by IS:2911 and maintaining complete record of observations	No.	272855	0	0
266	R2-BW-5-7-D	Carrying out integrity test on piles of various diameters as per standard procedure and submitting reports.	No.	550	0	0
267	R2-BW-7-11	Epoxy bonding of new concrete to old concrete	sq-m	535	93	49755
268	R2-BW-2-25	Providing and placing in position controlled cement concrete of M-40 grade for foundation work with minimum cement 400 kg./cum. and water cement ratio not exceeding 0.4 for RCC raft foundation slab with V notches Sloped / flat / strlp footings, pile caps tie beams to required lines / levels including leveling, compacting by vibrators, curing including shuttering, centering as necessary and required etc. complete as specified and as directed but excluding reinforcement.	cu-m	7995	65	519675

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
269	R2-BW-4-41-A	Providing and placing in position controlled cement concrete of M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for RCC Precast Girders and Diaphragms with form finish surface in any shape and size as per detailed drawings and designs including formwork, temporary supports as necessary and required, compacting by vibrators, levelling, curing and finishing etc. complete as specified and directed but excluding reinforcement and placing in position.(using concrete mixer),PSC Grade M-40,using Concretemixer, for T-beam & slab, height upto 5m.	Cum	8560	0	0
270	R2-BW-4-40-A	Providing and placing in position controlled cement concrete of M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for RCC Precast Girders and Diaphragms with form finish surface in any shape and size as per detailed drawings and designs including formwork, temporary supports as necessary and required, compacting by vibrators, levelling, curing and finishing etc. complete as specified and directed but excluding reinforcement and placing in position.(using concrete mixer),PSC Grade M-40,using Concretemixer, for solid slab super structure, height upto 5m.	Cum	8245	0	0
271	R2-BW-4-34-C	Providing and placing in position controlled cement concrete of M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.4 for cast-in-situ portions after launching girder of rcc deck slab, cross diaphragms to required lines and levels including levelling, compacting by vibrators, curing including formwork, temporary supports as necessary and required etc, complete as specified and directed but excluding reinforcement, rcc M-40 Grade, Using rmc and concrete Pump, For solid Slab super structure, Height above 10m.	Cum	9603	0	0
272	R2-CS-CW-26	Encasing rolled steel sections, in beams and columns, with cement concrete of 1:1½:3 (1 cement: 1½ coarse sand: 3 graded stone aggregate 20mm nominal size) including centering and shuttering complete but excluding cost of reinforcement.	Cum	11810	0	0
273	R2-RW-10-06	Providing & laying R.C.C. running beam in M-40 cement concrete including required formwork 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 slipper slab properly with M.S. reinforcement as per drawing etc. complete as specified (Steel will not be paid separately).Contractor has to make his own arrangement for portable waterfor construction/curing with hessian cloth, etc. & will not be paid separately. Beam Size:b) 23cm. x 30cm.	Rmt	844	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
274	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, hooking the bars, binding with wires or tack welding, supporting as required etc. all complete at all levels. corrosion Resistant Steel (500CRS D)"	MT	82356	181	14906436
275	R2-BW-5-3-C	Providing and applying epoxy base paint to RCC piers, columns, beams, girders, diaphragms, slabs, parapets etc. including cleaning the surfaces thoroughly so as to remove deposited salts, oil, grease, tar, moisture etc. from the surface, preparing the surface, applying putty consisting of epoxy base paint and steolite powder, to render the concrete surfaces smooth by covering small irregularities and applying one coat of epoxy paint including scaffolding etc. complete as specified and directed.(2 coats epoxy + primer)	Sqm	412	2294	945128
276	R2-BW-5-3-D	Providing and applying epoxy seal coat to new or repaired surfaces of RCC structural members, prepared by mixing araldite GY 250 and hardener in 100:50 proportion by weight with stiff nylon bristle brush as per manufacturer's specifications etc. complete as specified and directed	Sqm	145	0	0
277	R2-BW-5-1-J	Providing and fixing in position Drainage Spouts including trough of 260 x 260. size fabricated using mild steel plates, flats, MS grating, etc. and 100mm dia GI pipe 1 m long as per detailed drawings etc. complete as specified and directed	Each	2213	0	0
278	R2-BW-5-4-B	Providing and fixing in position PVC pipe 100 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 etc. complete as specified and directed	Rmt	587	0	0
279	R2-RW-10-59	P/L in position hot poured rubberized asphalt (sealing compound) for contraction joints spaced at every 4.0 m intervals using Backer Rod. The Diameter of Backer Rod Should be Approximately 25 percent greater than the width of joint to ensure a tight fit. The dimension recommended for the sealant width (W), depth (D) and recess (R) are respectively 10-12 mm, 8-10 mm and 6 mm	Rmt	33	0	0
280	R2-BW-5-3-E	Providing and applying two coats of Hi_x005F_x0002_Build coal tar epoxy formulation corroseal TE-321 with an interval of minimum 4 hours - 8 hours between application of successive coats including preparing and cleaning the surface thoroughly so as to remove deposited salts, grease, oil, dust, tar etc. using coarse brush etc. complete as specified and directed.	Sqm	268	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
281	R2-BW-8-23	Cleaning the existing concrete substrate to achieve maximum adhesion between the coating and substrate. Free the surface from loose material, grease and oil by water jet/mechanical means. Dry the surface completely. Cracks, if any, shall be filled with Polymer modified mortar. Providing and applying two coats of Two component, anti_x005F_x0002_corrosive, Anti-carbonation, solvent free, inter- penetrating polymer network based phenolic epoxy coating/primer. This should be followed by one coat of protective two component, Acyclic, polyisocyanate reticulant based, UV resistant coating. Apply the coats by brush or spray at 4-6 hours interval between each coat. Allow it to dry for 24 hours.complete as directed by the Engineer in charge.	sq-m	534	0	0
282	R2-BW-7-4	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy	Each	230	0	0
283	R2-BW-7-5-B	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification. Cement mortar (1:1) Grouting	Kg	197	0	0
284	R2-CS-RM-107	Injecting 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.)	kg	170	0	0
285	R2-CS-CW-1H	Providing and laying in position plain cement concrete of specified grade cement with trap/granite/quartzite/gneiss metal mixing in concrete mixer including bailing out water, compacting, finishing surface, curing and including the cost of centering and shuttering at all level :Nominal Mix of 1:4:8 (1 Cement (PPC): 4 coarse sand : 8 graded stone aggregate 20	Cum	5779	0	0
286	R2-CS-EW-23	Providing & Laying dry stone Rubble Pitching with average 150 mm size and of minimum thickness 230 mm hard stone set in regular lines to form plane surface, handpacked and interstices thoroughly filled with small chips including providing and laying gravel quarry spells underneath for leveling undulations of the ground. etc complete as directed by Engineer In Charge. (Note: The rate includes the royalty and other taxes if any)	Sqm	416	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
287	R2-CS-CW-45	Providing Ready mix Micro Concrete jacketing to walls or beams of thickness upto 75 mm using Polymer modified cement premixed quartz sand aggregate packed in bags of standard manufacture, for high early strength of 40 N/mm sq.cm of approved brand. The dry product is to be mixed with 12.5% water by weight, along with washed and poured into rigid form work moulds & tamped properly, & cured for 3 days. [Payment is to be made by weight premixed of micro concrete product consumed as per site register records. No extra payment shall be made for shuttering or any other material.	kg	40	0	0
288	R2-CS-CW-54	Chipping /removing loose concrete upto reinforcement bars, without damaging the reinforcement, removing all the loose materials and to make all the exposed surfaces free from oil, dust and all impurities etc complete	sq-m	236	0	0
289	R2-CS-CW-55	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush and applying polymer bond to the old concrete surface before applying Polymer mortar	Sqm	33	0	0
290	R2-CS-CW-56	Providing and applying Ready mix Polymer modified cement mortar of average thickness 15mm using Polymer in one or more layers in proportion 1:5:15 of Polymer Cement Quartz Sand as manufacturer's specifications in specific layers, curing the surface after 72 hours of application with wet gunny bags etc and by finishing the surface with 12mm thick (1:3) Cement sand plaster.	Sqm	2782	0	0
291	R2-CS-CW-37	Guniting in the proportion of 1:3.5 (C.S.) to the R.C.C. slabs, walls, floor etc. to an average thickness 40 mm and providing B.R.C. fabric 15 cm sq.mesh, 3.15 mm (10 G) thick or M. S. bars 6 mm dia. at 10 cm to 20 cm C/C both ways as directed. The rate includes the cost of removal of loose or cracked concrete and roughening the surfaces to receive guniting but excludes rate of scaffolding which will be paid separately	Sqm	1089	0	0
292	R2-CS-RM-111	Supplying and fixing on hiring/rental basis for the interval of six months in vertical position telescopic M.S.prop under deflected beam/lintel/slab/chajjas by using teak wood battens of size 1000 x 80 x 80 for packing between prop plate and the beam/lintel/slab/chajjas bottom surface and dismantling and removing from site when not required as per the directions of engineer-in-charge	Each	2500	0	0
293	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	Cum	484	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
294	R2-CS-DD-5-B	Demolishing stone rubble masonry 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 :In cement mortar			0	0
295	R2-CS-FL-9-D	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. Dark coloured antiskid / matt vitrified tiles	Sqm	1762	0	0
296	R2-CS-FL-87	Providing & Laying HINDUSTAN paving Tiles on Road of Vindhya Floor tiles having abrasion/wear resistance & wet Transverse strength, size 355mm x 355mm x 25mm thick fixing on cement mortar 1:4 in any colour & pattern as directed by Architect etc complete.	Sqm	1416	0	0
297	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.	Sqm	4259	0	0
298	R2-CS-FL-16	Providing and laying 16-20 mm thick and 75mm wide strips of rough jet black Granite stone (or equivalent) of approved colour, on ramp to get anti_x005F_x0002_skid effect 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, curing, finishing etc. complete as directed by Engineer-incharge	Sqm	5501	0	0
299	R2-CS-SS-17	Providing, fabricating and fixing 1.0m high Cast Iron hand railing including decorative studs at regular interval, painting with one coat of red oxide zinc chromate primer and two coats of synthetic enamel paint etc complete as directed by Engineer In Charge.	Rmt	1873	0	0
300	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 316 L 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.	Kg	707	7495	5298965

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
301	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.	Sqm	3636	338	1228968
302	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.	No.	33	0	0
303	R2-CS-FL-51-B	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 above 30mm and upto 50mm in any language as directed	No	39	0	0
304	R2-CS-FL-51-C	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. Border line upto 12mm thk.	Rmt	224	0	0
305	R2-CS-FL-56	Rounding the edge in quarter 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	Rmt	184	0	0
306	R2-CS-MW-3-B	Brick work with common burnt clay F.P.S. (non modular) bricks of class 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)	Cum	6930	0	0
307	R2-CS-PL-48	Providing and applying special decorative Malad-crete plaster, forming the joints like Ashlar masonry in c.m. 1:3, using white cement approved pigment and crushed sand out of stones to match with the Ashlar pattern stone Khandki facing on lower floors, necessary curing and finishing with Artificial stone dressing effect all as per instruction complete. (The work to be carried out through specialized skilled masons, competent to carry out such fine finishing works).	Sqm	1860	0	0
308	R2-CS-PN-27	Providing and applying one coat of approved silicate based primer with roller / brush and one coat of granite textured exterior paint of an approved make with spray to get designed finish with two coats of lacquer in approved finish shade of thickness 2-2.5mm as per approved manufacturers specifications to textured sand faced or other surfaces, at all heights and locations as directed including preparing surfaces for painting by any approved means, watering, scaffolding, cleaning and curing etc. complete as directed by Engineer-in-charge	Sqm	1552	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
309	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.	Sqm	3740	0	0
310	R2-RT-16-19	Providing, Fabricating, Erecting on site Direction Board as per figure no RT_x005F_x0002_16-19, Vertical poles shall be made of ISMC of 150x75hot dip galvanised post, Signage plaque (box) shall be of size 900mm x 1800mm made of hot dip galvanised ISMC 75mm x 40mm & bracing of 50x6mm hot dip galvanised channel. The sign board box shall be covered with 4 mm aluminum composite panel on both sides of the box assembly & shall be fixed to the vertical pole. The box shall be pasted with MICRO PRISMATIC GRADE retro reflective base sheets on both sides conforming to Type XI standards of I.R.C. 67 2012 CODE. Letters or borders to be pasted using electro cuttable film. The reflectivity of sheet shall have guarantee of 10years. The reflection count shall not be less than 80% of its original reflection after 10years. The vertical poles shall be fixed to the ground by means of properly designed foundation of size 750mm x 750mm x 900mm. Complete as per specification and direction by the Engineer	Nos	44943	0	0
311	R2-ME-2-3-K	1.1 kV grade stranded Cu conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed, galvanised steel round or strip armoured cables (SP-ME-TS- 6) 4C x 4 Sq.mm	meter	242	520	125840
312	R2-ME-1-10-A	Main- wiring & Laying rate for mains include wires/ flexible cables, pull boxes, flexible conduit, conduit junction box, clamps, cleats, hardware, accessories, anchor fastners etc. it shall include supply and installation of all the above as applicable ;1.1 kV grade 2 Noss. (P+N) copper conductor wires of area 4.0 sq mm and 1Nos. (E) 2.5 sq. mm copper wire for 15 /16 Amp single phase switch.	meter	461	150	69150

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
313	R2-ME-2-12	Cable end terminations for LV, XLPE/PVC insulated, PVC sheathed, armoured/ unarmoured cables including supply and fixing of Double compression cable glands, stripping of cable insulation, supply and fixing of tinned plated copper lugs for copper cables for all phases and crimping the same to the conductor for the following cables. Miscellaneous items like cable lugs, G.I nut - bolts and G.I washers , consumables and other hardware materials as required to make the installation complete, are in the scope. All G.I Nut, bolt and washers shall be HDGI with 80 micron. One set of termination includes gland, lugs for cable core & accessories-3C x 4 sq-mm	Set	0	0	0
314	R2-ME-2-12-Q	Cable end terminations for LV, XLPE/PVC insulated, PVC sheathed, armoured/ unarmoured cables including supply and fixing of Double compression cable glands, stripping of cable insulation, supply and fixing of tinned plated copper lugs for copper cables for all phases and crimping the same to the conductor for the following cables. Miscellaneous items like cable lugs, G.I nut - bolts and G.I washers , consumables and other hardware materials as required to make the installation complete, are in the scope. All G.I Nut, bolt and washers shall be HDGI with 80 micron. One set of termination includes gland, lugs for cable core & accessories-4C x 4 sq-mm	Set	179	6	1074
315	R2-ME-7-1-C	Earthing station with 600 mm x 600 mm x 6 mm galvanised iron plate & 50 mm dia. G.I. pipe, 3000mm long GI pipe (Class B or better) earth pit as per IS 3043. The earth pit shall be provided with watering pipe (Class B) with wire meshed funnel, 25x3 GI strip/ / 2X8SWG G.I. wire up to chamber (wire or strip size as per fault level), disconnecting links with 600 x 600 mm (clear) RCC chamber & heavy duty 3mm thick CI chequered plate cover with hinge & stainless steel bolts. Bentonite/ Charcol & Salt shall be provided for earth pits. Excavation, back filling, removal of excess soil is included in the scope.	Nos	17789	2	35578
316	R2-ME-7-4-E	Supply & installation of earth conductor of the following sizes to be cleated on wall/ columns with nuts & bolts or laid in cable tray/ buried in ground including cutting, drilling, tapping, jointing by welding, connecting to equipments, painting to welded portion by black bitumen paint and with all necessary GI hardware & accessories to complete the work - 25 x 3mm GI	Mtr	49	61	2989
317	R2-ME-7-4-H	Bare Copper Conductor size 14 SWG	Mtr	31	382	11842
318		DWC PIPE, GI PIPE AND ACCESSORIES			0	0
319	R2-ME-2-21-E	Supplying & laying I.S.I. mark 'B' class GI Pipe for surface / under ground cable protection -38/40 mm dia.	meter	553	51	28203

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
320	R2-ME-2-22-A	Supply & Laying of double wall corrugated (DWC) pipes of HDPE for underground cable protection as per IS 14930 Part II. With necessary connecting socket/couplings, tees of some material at required depth up to 900 mm below road ground surface. backfilling of with light ramming is included in the scope-50 mm OD / 38 mm I.D.	Metre	226	301	68026
321	R2-ME-6-6-B	Cement concrete foundation using M_x005F_x0002_20 cement concrete mix with J shaped foundation bolts where required.	Cum	8279	9	74511
322	R2-ME-2-8	Excavating the trenches and refilling, reinstatement of the same after the cable is laid in approved manner (750 mm deep, 600 mm wide),in all types of soils 1 Cu. Mtr. = 2.2	Cum	307	100	30700
323	R2-ME-2-9	Excavating the trenches and refilling the same after the cable is laid in approved manner (Size of trench: 750 mm deep, 600 mm wide) in concrete/ masonry / asphalt. 1 Cu. Mtr. = 2.2 RMT. And reinstatement.	Cum	500	10	5000
324	R2-ME-10-8-A	Providing & erecting 3 m high galvanized CONICAL pole with foundation bolts having bottom dia. From 105 to 115 mm, top dia. from 65 to 75 mm provided foundation as per Specification.	Nos	26542	0	0
325	R2-ME-1-15-N	Supply, installation, testing & commissioning of distribution boards, 4 way VTPN type DB with door.	Each	11946	1	11946
326	R2-ME-1-19-B	MCBs In 16 SWG CRCA sheet steel enclosure, powder coated, wall / column mounted with provision for support arrangement, 2 earthing terminal, Incoming & outgoing cable terminal etc. with required hardware & fasteners. All MCBs shall be rated for 10kA, 'C' curve type. Colour shade shall be RAL 7032 Smoke gray as per IS 5. IP 43 Enclosure:16/32 Amp. TPN MCB	Nos	4174	1	4174
327	R2-CS-SS-30-c	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. With Base Metal Thickness (BMT) (excluding Zinc coat thickness) 1.6 mm thick Profile decking sheet .	Sqm	1440	951	1369440
328	R2-SWD-153-A	Constructing cofferdam of puddle bags with clay etc. as specified & as directed by Engineer in Charge.	Cu-m	5282	3570	18856740

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
329	FA-BR-2019-01	Extra over rate for concrete items using boom placer including transportation & handling of required machinery, labor on site as required, No extra payment will be made for transporting the machinery from one location to another location as and when directed by Engineer in charge.	Cum	1202	461	554122
330	R2-ME-12-13-p	Design, Supply, testing, installation and commissioning of modular 16 channel 1080P NVR, Recording: 1920X1080P, 15 FPS, 30 days recording, 24 hours/day; Real time monitoring with 25 FPS. Hard disc : 8 SATA III Ports, Each 6TB , up to 48TB, 1 eSATA port, Disk array: Support RAID 0/1/5/6/10, Two no's of RJ -45 10/100/1000 Mbps self adaptive Ethernet interface, RS 232, RS 485, keyboard interfaces, VGA/HDMI compatible, 2nos front USB 2.0 & 1 no at rear USB 2.0 compatible & 8 TB hard disc and as per storage configuration contractor shall	Nos	105180	1	105180
331	R2-ME-12-9-z	SITC of 16 ports 10/100/1000 with 2 combo ports PoE switch with installation	Nos	37442	1	37442
332	R2-ME-12-13-o	Supply, Installation, Testing & Commissioning of IP PTZ camera with HD1080P 2.1MP Resolution, 20x optical zoom, 16X Digital zoom , Day/Night, Wide dynamic range, Dual H.264 streaming, 0.05 lux, vandal resistant, 360° continuous pan, -5° to +95° tilt, 300 preset, 4 tours, IP66 rated with built in heater and blower, Mounted on Wall/Pole as per site requirement (including required accessories), UL listed as per detailed specifications. Camera Shall be ONVIF compliant	Nos	203490	5	1017450
333	KH-FF-F36	Providing, Laying, testing And Commissioning of Cat 6 Armoured Cable.	Mtr	190	620	117800
334	R2-ME-12-8-a	25mm PVC conduits	Rmtr	35	320	11200
335	R2-ME-12-9-u	SITC of 9 inch Rack	Nos	7326	1	7326
336	R2-ME-12-13-k	SITC of 6TB Storage (HDD)	Nos	27797	1	27797
337	R2-ME-12-9-m	3 Feet Patch Chord	Nos	163	3	489
338	R2-ME-12-14-a	Supply, Installation, testing, commissioning, performance demonstration of 2 KVA UPS true online with 1 phase input, 1 phase output with back up batteries for 2 Hours backup along with rack & connectors.	Nos	87908	1	87908
339	R2-ME-3-27-b	2/3 Pin Independent Plug (IP)	Nos	735	4	2940
340	R2-ME-12-9-a	Router for ISDN	Nos	4558	1	4558
341	R2-ME-2-8	Excavating the trenches and refilling the same after the cable is laid in approved manner (Size of trench: 750 mm deep, 600 mm wide) in concrete/ masonry / asphalt. 1 Cu. Mtr. = 2.2 RMT. And reinstatement.	Cu.mtr	307	10	3070

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
342	R2-ME-12-13-t	Supply, Installation, Testing & commissioning of 42inches LED monitor, Full HD Resolution, Backlight LED, Brightness : 400 NITS min., Contrast : 1200 : 1 or better., Power supply : 230 ±10%, 50 Hz.	Nos	73859	1	73859
343	R2-ME-10-12-a	Supplying and erecting Outdoor Stand Mounted Feeder Pillar for highmast of the same manufacturer with 32A TPN MCB incomer, single dial timer switch, 25 A TP contactor for automatic switching of luminaries, 2 no 9A contactors and raise/lower push button, and provision for termination of Incoming minimum 35 sq. mm and outgoing minimum 16 & 2.5 sq. mm cables complete erected in min. 14 guage CRCA sheet box with supporting angles, self lock, gasket and slanting top erected on CC foundation in an approved manner.	Nos	49333	1	49333
344	R2-ME-10-12-c	Time controller for street light poles	Nos	26841	1	26841
345	FAIR-MAHIM-7	Spot light - LED NSL 12M, 27watts, 2230lm minimum, 4000 K CCT , Inbuilt Electronic driver ,IP 65 Projection,CRI>70, Voltage input 230V, made of Die casting aluminium & finished With anti-ageing electrostatic spray processing Dimension 196mm(L) X 152mm(W) X 192mm(H)	Nos	23300	6	139800
346	R2-BW-4-15-a	Providing and placing in position controlled cement concrete of M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for RCC work of main beams, girders, cross girders, diaphragm solid slab to required lines and levels including levelling, compacting by vibrators, curing including formwork with formfinish surface as necessary and required centering etc.complete as specified and directed but excluding reinforcement.(using concrete mixer).(For T-beam & slab)(Height upto 5m)	cu-m	8787	233	2047371
347	R2-BW-4-15-b	Providing and placing in position controlled cement concrete of M-40 grade using minimum cement content as 400Kg/cum and max water cement ratio of 0.40 for RCC work of main beams, girders, cross girders, diaphragm solid slab to required lines and levels including levelling, compacting by vibrators, curing including formwork with formfinish surface as necessary and required centering etc.complete as specified and directed but excluding reinforcement.(using concrete mixer).(For T-beam & slab)(Height upto 5m to 10m)	Cu-m	9102	213	1938726
348	R2-GW-2-8-D	Watering of tree @12 liter per tree, weeding, application of fertilizer and peaticide as and when required loosening of soil for for maintaining the porosity, stacking of tree, removal of lower side shoots time to time for proper growth of the tree. If any casulty found same should be replaced without extra cost. Top dressing of 5 cm or 2.5 cm twice in a year with Mixture of RHE & CDM in 2:1 Proposed on, Plants should be in healthy condition free from pest, disaease attack. Item should be opretd wherever watersupply is available.	Nos/Per day	112	74460	8339520

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
349	R2-GW-2-4-E	Maintenance of Shrubs/Hedges/Edges Excluding cost of Water.	SQM/Month	40	10	400
350	R2-RW-2-01	Supplying blue trap stones of approved quality & providing the same in rubble packing 25cm thick to the required level & camber, filling in voids with chips & 60mm metal etc. including spreading over the rubble 60mm metal 75mm thick, compacting to the satisfaction of the Engineer by a roller weighing not less than 10 tonnes etc. complete as specified & as directed by the Engineer .	Sq.Mt.	499.00	39959	19939541
351	R2-SWD-113	Providing and constructing stormwater drain brickmasonry rectangular manhole as per standard drawings, with internal sizes 1.50 m x 1.50m for a depth 1.60 m built in brick masonry in cement mortar 1:2, 20 mm thick plastering both internal and external faces of walls in cement mortar 1:1 (without waterproofing compound) and neat cement rendering so as to give a smooth surface, including 300 mm thick M-15 grade cement concrete in foundation and in haunches and channels finished smooth with 20 mm thick cement plaster in cement mortar 1:1 and providing & installing approved Co-polymer polypropylene steel reinforced manhole safety step (weighing between 0.8 to 0.9 Kg) at 375 mm/c, including 75 mm wide vata all round the external portion of the manhole and the foundation concrete in cement mortar 1:1 and supporting the incoming and outgoing pipes with brick masonry wherever necessary, including RCC slab in cement concrete M-30 grade, 300mm high RCC cap in M-30 grade cement concrete including reinforcements finished with cement plaster in cement mortar 1:1 both inside and outside	Each	69,278.00	286	19813508
352	R2-SWD-114	Extra over item no R2-SWD-113 per meter depth above 1.60m , etc complete as specified & as directed by Engineer in Charge. (Rebate at the same rate will be taken if the depth of	MD	35,026.00	186	6514836
353	R2-SWD-183	Supplying and fixing 1.20m x 0.90m (2 nos of 0.60m x 0.90m) internal size rectangular D.I. air-tight hinged type cover and frame (weighing minimum 300 kg.) of material grade SG-500/7 as per IS 1865-1991 with grade designation of C250 as per EN-124, specification no 3, including testing and inspection as per guidelines of IS specifications, including fixing with M-30 concrete and locking arrangement etc. complete as specified and as directed by Engineer-in-Charge.	Each	52,771.00	125	6596375

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
354	R2-RT-16-31	St. Street Pole benches 6F-D-RO1,6F-DRO2 and 6F-D-RO3 : Providing, fabrication and fixing stainless steel railing of 10 gauge 304 grade material having minimum nickel contain not less than 10% (laboratory testing certificate shall be provided for used material) 50mm Dia circular pipe back rest with 100mm Dia circular seat, supporting of including cutting welding riveting, polishing as directed and fixing in cement concrete foundation including removal of surplus material /debris and restoring damaged portion of footpath , etc. (design details vide Drg.No.6F-D-RO1 and 6F-D in the catalogue of street Furniture (Vol. published by M.C.G.M) Rate includes per Meter per back rest pipe	Per meter Per Back rest pipe	12944.00	0	0
355	R2-RW-5-03	P/L premix hot mix Bituminous concrete with 6.00% of 60/70 Penbitumen content by weight of mix surface coat to compacted thickness of 40 mm. using new material to the required grade, level and camberrolling with vibratory roller , power roller, pneumatic roller & using sensorpaver etc. complete as specified and as directed with addition of lime filler 2% by weight of mix and anti stripping agent @ 1.00% of bitumen etc. (As per New Road Specifications Clause No. 364)	Sqm	441.00	9694	4275054
356	R2-RW-10-44	P/L Controlled Low Strength Material (CLSM) having avg. compressive strength 5.0Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at worksite, compacting, finishing curing etc. as specified & directed by the Engineer. (MINIMUM CEMENT CONTENT 200 kg/m ³)	Cum	4410.00	0	0
357	R2-RW-10-46	Providing and fixing pre-cast Central Median divider Type-I of R.M.C.M-20 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including bedding R.M.C.M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer. (Note:-Every 10 dividers shall have 40 mm. dia. hole along the center line of divider at formation level of road to drain off rain water /	Rmt	1685.00	50	84250
358	R2-RT-15-03-A	Removing RCC parabolic dividers from the road & transporting the same anywhere in Gr, Mumbai limit, stacking the same as directed	Rmt	490.00	100	49000
359	R2-RW-10-64	Extra Over item of marble chip finish above M-20 in footpath Providing, applying and finishing the top surface of M 20 concrete with natural coloured or plain marble chips of any colour, texture, pattern of average size ranging from 12 mm to 18 mm and free from dust including cleaning of surface with water and cutting of finished concrete. Coverage of marble chips should range between 75% to 85% of the area to be treated including cost Of skilled manpower, cutting machine and all tools tackles for all activities: Complete finish/ polishing etc as per direction of Engineer-In-Charge.	sq.m	163	0	0

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
360	R2-BW-7-7	Sealing of crack / porous concrete with Epoxy Grout by injection through nipples complete	Kg	2998	505	1513990
361	R2-RW-10-41	Providing & Fixing of the Ferrocete precast slab (concrete grade M-25 with medium duty slab) of size 1050mm.*500mm.*50mm. Red, & Grey colour finish to be used as footpath over SWD in c.m.1:4 12mm thk to the required level including carrying out necessary load tests @ Municipal testing laboratory @ 2 nos. per 100 nos. of slabs	/Slab	2,031.00	420	853020
362	R2-SE-6-2-b	Constructing on sewer brick masonry conical manhole 1.5M.dia. at bottom and 0.56Mdia. at top including C.I. Extra. Heavy Duty circular airtight frame and cover etc. complete as per description item No. SE-6-1 depth upto 2.3	nos	90,305.00	51	4605555
363	R2-RW-7-37	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 sections longitudinally at 20 m intervals with levels at every 4 m cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form etc complete. Upto 18.30 m wide road.	Upto 500RM t	20182.5	35	706387.5
364	R2-RW-7-38	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 sections longitudinally at 20 m intervals with levels at every 4 m cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form etc. complete upto 18.3 m wide road. Extra over and above for every 100 m and part thereof.	Per 100 m	3900	22	85800
365	R2-CS-EW-3	Excavation for foundation, substructures, basements, tanks, sumps, walls, chambers, manh	Cu.M	500	553	276500
366	R2-CS-EW-7a	Excavation by chiseling by manual operations, pneumatic breaker, hammer, drilling, comp	Cu.M	127	260	33020
367	R2-CS-EW-7b	Excavation by controlled blasting with necessary safety precautions as per statutory requir	Cu.M	227	251	56977
368	R2-BW-5-7-u	Providing & Laying inverted filter behind Abutment & RE wall with suitable thickness.	Cu.M	969	421	407949

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
369	T3-15-014-F AIR2	Providing and laying a woven geotextile of Type-I manufactured from white UV stabilized 100%Polypropylene Multifilament yarns on the prepared subgrade for Reinforcement cum separation cumdrainage & filtration application with necessary overlaps as per drawing etc. complete.(Specification: As per MORT&H, Section-700(5th Revision)(TFI 1200P)	sq.m	138	128	17664
370	R2-RT-16-03	Providing, fabrication and fixing Stainless Steel railing of 10 Gauge of 304 grade stainless steel having minimum nickel content of 10% (laboratory testing certificate shall be provided for used material) 40mm X 40mm square pipe railing with 18mm X 18 mm square intermediate support 65mm X 65mm square, main support with stainless steel pedestal (base-I type) and stainless steel cap (type-I) including cutting welding, riveting, polishing as directed and fixing in cement concrete foundation as shown vide Sr.No.2F-A1 in catalogue of steel Furniture (Vol.I) published by M.C.G.M. including removal of surplus material/ debris and restoring damage portion of footpath etc. as directed.	R.Mt.	18,297.00	1875	34306875
371	R2-CS-SS-07-b	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.	Rmt	320	27290	8732800
372	RT2-09-005-FAIR1	Making Drilling horizontal 300 mm deep holes into existing old cement concrete pavement for fixing dowels of 32 mm dia. as directed by the Enginner and in case of any damage to the existing C. C. pavement panels with new one, free of cost. Note- This item shall be operted only after specific sanction from Director (E.S.& P)	Rmt	679	900	611100
373	R2-RW-10-01	Providing & laying M-40 cement concrete having avg. compressive strength 45 Mpa, flextural strength 4.8 Mpa including form work,	Cu,Mt	5956.00	509	3031604
374	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 rank vegetation and removing the excavated materials within a lead of 150M as directed including levelling, ramming,etc complete, and measured from the edge of cutting including all lifts and stacking in layers and removing the surplus excavated materials as directed for lift upto 2M{Records to be maintained properly}.The rate also includes supporting public utilities such as cables,drains,pipe water mains, but shall not include the cost of shoring etc as specified and directed.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 if any.	Cu.Mt	468.00	4130	1932840

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
375	R2-SE-1-1-a	-do-do- as per item SE-1-1 for lift from 2m to 4.0m	Cu.Mt.	638.00	4554	2905452
376	R2-SE-1-1-b	-do-do- for lift from 4.0m to 6m	Cu.Mt.	868.00	0	0
377	R2-SE-1-1-j	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, pitching, soling, paths and hardcore, lime concrete, plain cement concrete, stone masonry and all types of brick/ block masonry below ground level	Cu.Mt.	429.00	1277	547833
378	R2-SE-1-4	Providing and removing open or closed 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. complete.	Sq.mt	715.00	6910	4940650
379	R2-SE-1-5	Leaving shoring in trenches. (New or Old) including dog spikes.	Sq.Mt.	1372.00	1386	1901592
380	R2-SE-2-1	Providing & laying M 10 c.c. For foundation/bedding including boxing, curing etc. complete as specified and as directed.	Cu.Mt.	6122.00	90	550980
381	R2-SE-2-5	-do- -do- M 15 c.c. For full encasement or cradle -do- -	Cu.Mt.	7354.00	641	4713914
382	R2-SE-6-2-c	Extra for above manhole per metre depth above 2.3M and upto 5M including safety chain and extra C.I steps on otherside of benching -do- -do-	M Depth	34099.00	51	1739049
383	R2-RW-1-08	P/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 sections (Lab C.B.R. in soaked conditions shall not be less than 4) etc. including cleaning & grubbing the ground (The contractor should take note of the site conditions pertaining to creek lands under reference & should note that nothing extra whatsoever will be paid like diversion of water, the protective measures that may be necessary to be carried out to protect the embankment from water & settlement of earth. Settlements will not be paid for the earth work must be retained for consolidations for one season & settlement if any will be ascertained & made up free of cost. The rates includes efforts for diversion of water, protection of embankments & also settlement of earth. etc. complete as per New Road Specifications clause no. 151.0.	Cu.Mt.	1511.00	250	377750
384	R2-CS-CS-MW-16	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 a Cement mortar 1:4 (1 cement : 4 coarse sand)	Cu.Mt.	6,511.00	525	3418275

Sr.No	ItemCodeNo.	Description	Unit	Rate	Quantity	Amount
385	R2-SE-5-9	Providing,LayingandJointingHDPEpipesofPE-80gradeandPN-6class with butt joints etc.complete as specified and directed 160 mm dia (OD)	Mts.	983.00	1929	1896207
Estimated Cost						11940306938.9
					Say	11940306939