

MANGALURU SMART CITY
GRAND SUMMARY OF E-SMART SCHOOL CIVIL WORK

Sr.No.	School List	Amount in Rs.
1	Dakshina Kannada Zilla Prathamika Higher primary School, Pandeshwara, Ward-46	95,82,439
2	GUPS & Govt. High School, Urdu, Bunder, Ward 44	93,40,703
3	Govt. Higher Secondary School, Hoigebazar ward-57	56,79,667
4	Lower Primary School, Hoigebazar, Ward-57	49,37,764
5	Gov. Upper Primary School, Neereshwalya, Ward-45	29,25,757
6	GUPS Bolar & Bolar west (Urdu) Ward - 58	1,56,56,491
7	Govt.primary and secondary school Balmatta, Ward-40	1,83,84,876
8	Govt. Practicing School, Opp. Maidan Road near Railway Station, Ward No - 46	1,07,75,862
9	Govt.Primary School, Bastigarden, Ward-41	52,89,985
10	Govt. Women's Pre-university College, Rathabeedi, Car Street Ward No - 43	1,00,89,848
	Total Cost	9,26,63,392
	Add Tender Premium @ 5%	46,33,170
	Add Contingency @ 3%	27,79,902
	GST @ 12% on SOR & Non SOR (Building, Hardscape & Softscape)	94,36,791
	GST @ 12% on SOR (Plumbing Work)	2,82,125
	GST @ 18% on Market Rate	11,11,731
	Administrative charges, Miscellaneous cost including Architectural Paint, Black Board Painting, Sports Equipments, Glass Work & Foldable Partition etc and rounding off (LS)	33,92,889
	Grand Total	11,43,00,000

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

Managing Director
MSCL Mangaluru

MANGALURU SMART CITY
MASTER BOQ of E-Smart School

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building and Compound wall Works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	2.34	28330.50	66,174
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	10317.82	5.50	56,748
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	572.13	3730.10	21,34,087
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	4709.24	300.30	14,14,185
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	24968.93	112.20	28,01,514
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	3207.57	374.00	11,99,631
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	cm	11850.00	0.77	9,125
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	128000.00	0.39	49,280
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	661.57	67.10	44,391
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	6026.09	328.90	19,81,981

Sr .No.	Description	Unit	Quantity	Rate	Amount
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	516.93	6490.00	33,54,876
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	1762.21	797.50	14,05,362
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnspillers, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	1161.37	6817.80	79,17,988
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	87.10	77860.20	67,81,838
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	3712.59	289.30	10,74,052
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	11073.14	397.10	43,97,144
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	208.00	161.70	33,634
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	2894.06	132.00	3,82,015
19	Providing and fixing unplastised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. do- with 110mm outer dia KSRB 18-19,Pg No.77,SI No.11.56.2	Rmt	312.00	666.60	2,07,979

Sr .No.	Description	Unit	Quantity	Rate	Amount
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)	Each	104.00	893.00	92,872
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	5732.60	304.70	17,46,723
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	6195.36	1452.00	89,95,668
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	378.19	5280.00	19,96,843
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	3018.07	1332.10	40,20,368
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	481.42	7914.50	38,10,201
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	1000.52	753.50	7,53,891
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	1001.92	753.50	7,54,946
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	17834.95	99.00	17,65,660
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	4028.05	447.70	18,03,359
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	936.94	111.10	1,04,093
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	2751.27	61.60	1,69,478
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	2751.27	55.00	1,51,320

Sr .No.	Description	Unit	Quantity	Rate	Amount
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	3002.03	578.60	17,36,975
34	Providing and laying non - asbestos high impact polypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, rafters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51	Sqm	60.71	649.00	39,401
35	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reapers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reapers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	3135.74	895.40	28,07,744
36	KSRB 9.4-1 : Providing Teak wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, HOM of machineries complete as per specifications. Specification No. KBS 9.33. (P.No.53, I.No. 9.10 of PWD SR 2018-19)	Cum	6.52	235129.40	15,33,044
37	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall conform to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all the members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)	Kg	4456.25	122.10	5,44,108
38	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF OR TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.51, SI.No. 8.29 of PWD SR 2018-19)	Sqm	178.25	793.10	1,41,370
B	External Development - Softscape & Hardscape				
39	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	1105.00	50.60	55,913

Sr .No.	Description	Unit	Quantity	Rate	Amount
40	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EO)	Sqm	1046.16	912.00	9,54,098
41	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	2110.24	25.30	53,389
42	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149	Sqm	2110.24	101.20	2,13,556
43	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)	Sqm	1317.20	2067.00	27,22,652
44	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	4292.94	1446.50	62,09,738
45	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually alround the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	4573.00	9.90	45,273
46	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	2007.00	514.80	10,33,204
47	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)	Rmt	120.41	491.70	59,206

Sr .No.	Description	Unit	Quantity	Rate	Amount
48	1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint. 3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF-	Sqm	1519.50	2600.00	39,50,700
49	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCCO700 all in complete as per manufacturer direction or EIC.	Rmt	756.00	130.00	98,280
50	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC	Sqm	1519.50	1400.00	21,27,300
51	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)	Sqm	100.20	471.90	47,284
C	Electrical Cost				
52	Removal of existing CFL, 1 x 9 W, surface mounted supply, installation, testing and commissioning of new LED 6W light fixture and commisioning with 50000 burning hours or 5 years of warranty	Nos.	4.00	1,212.28	4,849
53	Removal of existing CFL, 1 x 12 W, Surface mounted supply, installation, testing and commissioning of new LED 6 W light fixture and commisioning with 50000 burning hours or 5 years of warranty	Nos.	1.00	1,303.32	1,303
54	Removal of existing CFL, 1 x 16 W, Surface mounted supply, installation, testing and commissioning of new LED 8 W light fixture and commisioning with 50000 burning hours or 5 years of warranty	Nos.	8.00	1,335.36	10,683
55	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commisioning with 50000 burning hours or 5 years of warranty	Nos.	254.00	1,146.40	2,91,186

Sr .No.	Description	Unit	Quantity	Rate	Amount
56	Removal of existing FTL, 2 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 2 x 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	7.00	1,691.00	11,837
57	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	81.00	600.16	48,613
58	Removal of existing Halogen, 500 W. Supply, installation, testing and commissioning of LED 150 W fixture with 50000 burning hours or 5 years of warranty	Nos.	2.00	11,350.85	22,702
59	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	3950.00	26.00	1,02,700
60	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	500.00	13.00	6,500
61	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	500.00	18.60	9,300
62	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		1100.00	29.20	32,120
63	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		5085.00	42.10	2,14,079
64	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	156.00	245.00	38,220
65	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	97.00	363.00	35,211
66	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	106.00	215.00	22,790

Sr .No.	Description	Unit	Quantity	Rate	Amount
67	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	550.00	70.00	38,500
68	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	135.00	63.00	8,505
69	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	135.00	114.00	15,390
70	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	135.00	147.00	19,845
71	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	151.00	286.00	43,186
72	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	186.00	29.00	5,394
73	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply conforming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	151.00	2,376.00	3,58,776
74	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	30.00	1,700.00	51,000
75	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	20.00	938.00	18,760
76	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	20.00	2,945.00	58,900
77	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	29.00	12,420.00	3,60,180
78	Lighting Pole, 4 m Fabrication, supply and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No.5.14.2)	No	4.00	7,398.00	29,592

Sr .No.	Description	Unit	Quantity	Rate	Amount
79	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	55.00	2,400.00	1,32,000
80	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.- above 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos	18.00	620.00	11,160
81	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	14.00	11,782.92	1,64,961
82	Supply and fixing of miniature circuit breaker on existiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	14.00	1,547.00	21,658
83	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	2326.00	117.00	2,72,142
84	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	359.00	81.60	29,294
85	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	106.00	11.31	1,199
86	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	106.00	3.21	340
87	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	20.00	5,500.00	1,10,000
88	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	800.00	19.50	15,600

Sr .No.	Description	Unit	Quantity	Rate	Amount
89	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1 12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia	Each	12.00	1,20,000.00	14,40,000
90	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	48.00	8,400.00	4,03,200
D	Plumbing Cost				
91	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	76.00	3,861.00	2,93,436
92	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	14.00	5,451.60	76,322
93	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	63.00	7,800.10	4,91,406
94	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	25.00	3,323.10	83,078

Sr .No.	Description	Unit	Quantity	Rate	Amount
95	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	25.00	1,249.60	31,240
96	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	153.00	557.70	85,328
97	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	25.00	478.50	11,963
98	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	79.00	913.00	72,127
99	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	16.00	831.60	13,306
100	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	79.00	1,185.80	93,678
101	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	16.00	877.80	14,045
102	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	190.00	360.80	68,552
103	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	190.00	338.80	64,372
104	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	63.00	275.00	17,325
105	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	440.00	477.40	2,10,056

Sr .No.	Description	Unit	Quantity	Rate	Amount
106	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	125.00	209.00	26,125
107	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	25.00	564.30	14,108
108	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	1203.00	143.00	1,72,029
109	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	603.00	172.70	1,04,138
110	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	303.00	215.60	65,327
111	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	963.00	226.60	2,18,216
112	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	483.00	258.50	1,24,856
	GRAND TOTAL				9,26,63,369

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MANGALURU SMART CITY

1.1 Grand Summary of E-Smart school - Pandeshwara

Sr. No.	Description	Cost In INR
1	E-Smart School - Pandeshwara	
a	Building & Compound wall works	7,709,229
b	Electrical Works	523,393
c	Plumbing Works	184,976
d	External Development - Softscape & Hardscape	1,164,841
	Total Cost	9,582,439

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MANGALURU SMART CITY

1.2 BOQ of E-Smart School - PAANDESHWARA

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building and Compound wall Works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.19	28330.50	5,298
2	KSRRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	823.20	5.50	4,528
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	67.05	3730.10	250,103
4	KSRRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	482.78	300.30	144,979
5	KSRRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	1814.72	112.20	203,612
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	258.40	374.00	96,642
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	cm	1000.00	0.77	770
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, alga etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	10000.00	0.39	3,850
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	16.40	67.10	1,100

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	525.93	328.90	172,978
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	45.80	6490.00	297,242
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	82.50	797.50	65,794
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	114.70	6817.80	782,002
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	8.60	77860.20	669,792
15	Providing and removing, centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	409.71	289.30	118,529
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	1009.01	397.10	400,678
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	32.00	161.70	5,174

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	274.90	132.00	36,287
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	48.00	666.60	31,997
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)	Each	16.00	893.00	14,288
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	267.71	304.70	81,572
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	573.67	1452.00	832,969
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	38.29	5280.00	202,171
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	114.45	1332.10	152,459
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	72.81	7914.50	576,255
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	59.50	753.50	44,833
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	59.50	753.50	44,833

Sr .No.	Description	Unit	Quantity	Rate	Amount
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	1152.00	99.00	114,048
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	525.31	447.70	235,182
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	350.21	895.40	313,576
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	57.75	111.10	6,416
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	133.28	61.60	8,210
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	133.28	55.00	7,330
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	114.24	578.60	66,099
35	KSRB 9.4-1 : Providing Teak wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, HOM of machineries complete as per specifications. Specification No. KBS 9.33. (P.No.53, I.No. 9.10 of PWD SR 2018-19)	Cum	6.52	235129.40	1,533,044

Sr .No.	Description	Unit	Quantity	Rate	Amount
36	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall conform to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, Sl.No. 7.29 of PWD SR 2018-19)	Kg	1200.00	122.10	146,520
37	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.51, Sl.No. 8.29 of PWD SR 2018-19)	Sqm	48.00	793.10	38,069
B	External Development - Softscape & Hardscape				
38	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19, SI No.19.86, Pg No 149	Rmt	213.00	50.60	10,778
39	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour, using cement and coarse sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	116.80	912.00	106,522
40	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying dobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19, SI No.19.82, Pg No149	Sqm	81.74	25.30	2,068
41	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19, SI No.19.83, Pg No149	Sqm	81.74	101.20	8,272
42	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)	Sqm	175.20	2067.00	362,138
43	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to match shade of tiles, including providing spacers at required interval and removing stains, including cost of all materials, mortar, labour, etc., Complete as per specification. (KPWD 18-19, SI.No.14.45.1)	Sqm	292.00	1446.50	422,378

Sr .No.	Description	Unit	Quantity	Rate	Amount
44	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	595.00	9.90	5,891
45	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	473.00	514.80	243,500
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)	Rmt	3.10	491.70	1,524
47	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)	Sqm	3.75	471.90	1,770
	GRAND TOTAL				8,874,070

GST @12% on SOR & Non SOR
GST @18% on Market

8753260
0

1050391
0

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - PANDESHWARA

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	2751.00	Area		2751.00
	Ded	Sqm	-1	881.00	Area		-881.00
		Sqm					1870.00
		Ha					0.187
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	42.00		1.87	156.80
	Right side	Sqm	2	53.00		2.00	212.00
	Left side	Sqm	2	64.00		2.10	268.80
	Back side	Sqm	2	54.00		1.60	172.80
	Pillar	Sqm	2	3.20		2.00	12.80
		Sqm			Total		823.20
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	16.80	0.23	1.87	7.21
	Right side	Cum	1	21.20	0.23	2.00	9.75
	Left side	Cum	1	25.60	0.23	2.10	12.36
	Back side	Cum	1	21.60	0.23	1.60	7.95
	Pillar	Cum	2	1.28	0.23	2.00	1.18
	Tree Guard	Cum	1	25.00	0.23	1.00	5.75
	Sitting Arrangement	Cum	10	1.50	0.23	1.50	5.18
	Ampitheter	Cum	1	13.00	0.46	0.60	3.59
		Cum	1	14.00	0.46	0.90	5.80
		Cum	1	15.00	0.46	1.20	8.28
	Total Quantity	Cum			Total		67.05
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	16.80		1.87	62.72
	Right side	Sqm	2	21.20		2.00	84.80
	Left side	Sqm	2	25.60		2.10	107.52
	Back side	Sqm	2	21.60		1.60	69.12
	Pillar	Sqm	2	1.28		2.00	5.12
	Tree Guard	Sqm	2	25.00		1.00	50.00
	Sitting Arrangement	Sqm	10	3.46		1.50	51.90
	Ampitheter	Sqm	2	13.00		0.30	7.80
		Sqm	2	14.00		0.60	16.80
		Sqm	2	15.00		0.90	27.00
	Total Quantity	Sqm			Total		482.78
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	42.00		1.87	156.80

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Right side	Sqm	2	53.00		2.00	212.00
	Left side	Sqm	2	64.00		2.10	268.80
	Back side	Sqm	2	54.00		1.60	172.80
	Pillar	Sqm	2	3.20		2.00	12.80
	Tree Guard	Sqm	2	25.00		1.00	50.00
	School						
	Outside Building	Sqm	1	150.00		5.00	750.00
	Deduction						
	Door-D	Sqm	-6	1.40		2.50	-21.00
	Door-D1	Sqm	-2	1.07		2.00	-4.28
	Door-D2	Sqm	-1	1.20		2.10	-2.52
	Window-W	Sqm	-1	1.20		1.50	-1.80
	Window-W1	Sqm	-20	1.24		1.24	-30.75
	Window-W2	Sqm	-10	1.26		1.22	-15.37
	Toilet Block						
	Outside area	Sqm	1	22.24		2.70	60.05
	Ded						
	Door-D	Sqm	-5	0.70		1.80	-6.30
	Door-D1	Sqm	-1	1.20		2.10	-2.52
	Ventilator-V	Sqm	-2	0.75		0.45	-0.68
	Old Anganavadi Block						
	Outside Building	Sqm	2	9.70		3.75	72.75
	Ded						
	Door-D	Sqm	-1	1.03		2.00	-2.06
	Window-W	Sqm	-4	1.20		1.20	-5.76
	Roof Sheet	Sqm	2	6.30	3.1		39.06
	Stage with steps side wall	Sqm	1	18.40		0.50	9.20
	Sitting Arrangement	Sqm	10	3.46		1.50	51.90
	Ampitheater	Sqm	2	13.00		0.30	7.80
		Sqm	2	14.00		0.60	16.80
		Sqm	2	15.00		0.90	27.00
		Sqm				Total	1814.72
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	42.00		1.87	78.40
	School building all side	Sqm	1	150.00		1.20	180.00
		Sqm				Total	258.40
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	20	50.00			1000.00
		Cm				Total	1000.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, alga etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers wipers rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	10000				10000.00
		Ltr				Total	10000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Entrance Gate	Sqm	1	4.30		2.00	8.60
	MS Vertiacl Pipe support in Stage	Sqm	13	0.20		3.00	7.80
		Sqm			Total		16.40
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	School Building	Cum	1	150.00	0.30	0.45	20.25
	Toilet Block	Cum	1	22.24	0.30	0.45	3.00
	Old Anganavadi Block	Cum	1	19.40	0.30	0.45	2.62
	Ampitheater	Cum	1	14.00	3.50	0.30	14.70
	Entrance	Cum	1	8.25	10.00	0.70	57.75
	RCC Covered Drain						
	SWD-0.3m Clear Width	Cum	1	133.20	0.80	0.87	92.17
	SWD - 0.45m Clear Width	Cum	1	127.31	0.95	1.05	126.99
	SWD - 0.60m Clear Width	Cum	1	127.47	1.10	1.23	171.77
	SWD Chamber	Cum	16	0.70	0.70	0.50	3.92
	UPVC Pipe	Cum	1	48.00	0.75	0.91	32.76
		Cum			Total		525.93
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggretes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD-0.3m Clear Width	Cum	1	133.20	0.80	0.10	10.66
	SWD - 0.45m Clear Width	Cum	1	127.31	0.95	0.10	12.09
	SWD - 0.60m Clear Width	Cum	1	127.47	1.10	0.10	14.02
	SWD Chamber	Cum	16	0.70	0.70	0.10	0.78
	PCC for Entrance area	Cum	1	8.25	10.00	0.10	8.25
		Cum			Total		45.80
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14						
	M15 Cement Concrete flooring for Entrance area	Sqm	1	8.25	10.00		82.50
		Sqm			Total		82.50
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	RCC Covered Drain						
	Raft						
	SWD-0.3m Clear Width	Cum	1	133.20	0.50	0.15	9.99
	SWD - 0.45m Clear Width	Cum	1	127.31	0.65	0.15	12.41
	SWD - 0.60m Clear Width	Cum	1	127.47	0.80	0.15	15.30
	SWD Chamber	Cum	16	0.50	0.50	0.10	0.40
	Side wall						
	SWD-0.3m Clear Width	Cum	2	133.20	0.10	0.465	12.39
	SWD - 0.45m Clear Width	Cum	2	127.31	0.10	0.65	16.55
	SWD - 0.60m Clear Width	Cum	2	127.47	0.10	0.825	21.03
	SWD Chamber	Cum	16	1.20	0.10	0.30	0.58
	Covered Slab						
	SWD-0.3m Clear Width	Cum	1	133.20	0.30	0.15	5.99
	SWD - 0.45m Clear Width	Cum	1	127.31	0.45	0.15	8.59
	SWD - 0.60m Clear Width	Cum	1	127.47	0.60	0.15	11.47
		Cum					114.70
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	38.10	75		2857.50
	Side wall	Kg	1	50.55	75		3791.25
	Covered Slab	Kg	1	26.05	75		1953.75
		Kg					8602.50
		MT					8.60
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD-0.3m Clear Width	Sqm	2	133.20		0.15	39.96
	SWD - 0.45m Clear Width	Sqm	2	127.31		0.15	38.19
	SWD - 0.60m Clear Width	Sqm	2	127.47		0.15	38.24
	SWD Chamber	Sqm	16	2.00		0.10	3.20
	RCC Covered Drain						
	Slab Bottom						
	SWD-0.3m Clear Width	Sqm	1	133.20	0.30		39.96
	SWD - 0.45m Clear Width	Sqm	1	127.31	0.45		57.29
	SWD - 0.60m Clear Width	Sqm	1	127.47	0.60		76.48
	Slab side						
	SWD-0.3m Clear Width	Sqm	2	133.20		0.15	39.96
	SWD - 0.45m Clear Width	Sqm	2	127.31		0.15	38.19
	SWD - 0.60m Clear Width	Sqm	2	127.47		0.15	38.24
	Total Qty	Sqm					409.71
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD-0.3m Clear Width	Sqm	4	133.20		0.465	247.75
	SWD - 0.45m Clear Width	Sqm	4	127.31		0.65	331.01
	SWD - 0.60m Clear Width	Sqm	4	127.47		0.825	420.65
	SWD Chamber	Sqm	16	2.00		0.30	9.60
		Sqm					1009.01

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	32.00				32.00
		Nos					32.00
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				427.61
	PCC Qty	Cum	-1				-37.55
	RCC Qty	Cum	-1				-114.70
	UPVC Pipe 110mm Dia	Cum	-1	48.00	0.01		-0.46
	Total Qty	Cum					274.90
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	48.00			48.00
		Rmt					48.00
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	16.00				16.00
		Each					16.00
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	School Building						
	Outside wall	Sqm	1	150.00		5.00	750.00
	Toilet Block						
	Outside wall	Sqm	1	22.24		2.70	60.05
	Ramp	Sqm	1	1.50		0.25	0.38
	Old anganavadi Block	Sqm	1	19.40		3.75	72.75
	Stage with steps side wall	Sqm	1	18.40		0.50	9.20
		Sqm				Total	892.38
	Total 30% Quantity	Sqm				Total	267.71
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	School Building						
	Staff Room	Sqm	1	3.30	5.80		19.14
	Skirting	Sqm	1	18.20		0.15	2.73
	School Building						
	Class Room	Sqm	2	4.59	15.15		139.08
	Skirting	Sqm	2	39.48		0.15	11.84
	Class Room With Stage	Sqm	1	15.15	5.80		87.87

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Stage	Sqm	1	3.85	5.80		22.33
	Skirting	Sqm	1	41.90		0.15	6.29
	Class Room	Sqm	1	5.70	6.30		35.91
	Skirting	Sqm	1	24.00		0.15	3.60
	Corridor	Sqm	1	18.50	1.80		33.30
	Corridor	Sqm	1	96.00	1.80		172.80
	Skirting	Sqm	1	114.50		0.15	17.18
	Old Anganavadi Block						
	Class Room	Sqm	1	3.84	4.94		18.97
	Skirting	Sqm	1	17.56		0.15	2.63
	Total Qty	Sqm			Total		573.67
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	School Building						
	Principal Chamber	Sqm	1	5.70	6.10		34.75
	Skirting	Sqm	1	23.59		0.15	3.54
	Total Qty	Sqm			Total		38.29
24	KSRB 14.14-5: Providing Ceramic tiles of approved make, shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment, including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19, SI No.14.36.2, Pg No.107 and 108						
	Toilet Block						
	Toilet 1	Sqm	1	0.95	1.86		1.77
	Toilet 2	Sqm	1	0.75	1.86		1.40
	Toilet 3	Sqm	1	0.75	1.86		1.40
	Toilet 4	Sqm	1	0.69	1.86		1.28
	Toilet 5	Sqm	1	1.75	1.86		3.26
	Toilet 6	Sqm	1	1.75	2.60		4.55
	Washroom Area	Sqm	1	1.84	2.60		4.77
	Toilet 1 Dadoo	Sqm	1	5.62		1.80	10.12
	Toilet 2 Dadoo	Sqm	1	5.22		1.80	9.40
	Toilet 3 Dadoo	Sqm	1	5.22		1.80	9.40
	Toilet 4 Dadoo	Sqm	1	5.10		1.80	9.18
	Toilet 5 Dadoo	Sqm	1	7.22		1.80	13.00
	Toilet 6 Dadoo	Sqm	1	8.70		1.80	15.66
	Ded						
	Door-D	Sqm	-6	0.70		1.80	-7.56
	Door-D1	Sqm	-1	1.20		2.00	-2.40
	Ventilator-V	Sqm	-2	0.75		0.45	-0.68
	Stage Flooring	Sqm	1	7.00	5.70		39.90
	Total Qty	Sqm			Total		114.45
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	School Building						
	Entry Step Tread	Sqm	1	3.80	0.30		1.14
	Entry Step Tread	Sqm	1	5.00	0.30		1.50
	Entry Step Tread	Sqm	1	6.20	0.30		1.86
	Entry Step Tread	Sqm	3	5.20	0.30		4.68
	Entry Step Tread	Sqm	3	6.40	0.30		5.76
	Entry Step Tread	Sqm	3	7.60	0.30		6.84
	Riser	Sqm	1	3.80		0.15	0.57
	Riser	Sqm	1	5.00		0.15	0.75
	Riser	Sqm	1	6.20		0.15	0.93
	Riser	Sqm	3	5.20	0.30		4.68
	Riser	Sqm	3	6.40	0.30		5.76
	Riser	Sqm	3	7.60	0.30		6.84
	Stage Step						
	Tread	Sqm	8	1.00	0.25		2.00
	Riser	Sqm	12	1.00		0.15	1.80

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Toilet Block Ramp	Sqm	1	1.50	1.20		1.80
	Old Anganavadi Block						
	Entry Step Tread	Sqm	3	1.02	0.20		0.61
	Entry Step Riser	Sqm	4	1.02		0.15	0.61
	Sitting arrangement	Sqm	10	1.60	0.23		3.68
	Ampitheter	Sqm	1	13.00	0.50		6.50
		Sqm	1	14.00	0.50		7.00
		Sqm	1	15.00	0.50		7.50
	Total Qty	Sqm			Total		72.81
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	School Building						
	Door-D	Sqm	8	1.40		2.50	28.00
	Door-D1	Sqm	2	1.07		2.00	4.00
	Door-D2	Sqm	1	1.20		2.10	3.00
	Window-W	Sqm	1	1.20		1.50	2.00
	Window-W1	Sqm	20	1.25		1.25	31.00
	Window-W2	Sqm	10	1.26		1.22	15.00
	Old Anganavadi						
	Door	Sqm	1	1.03		2.00	2.00
		Sqm			Total		85.00
	Total 70% Quantity	Sqm			Total		59.50
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	School Building						
	Door-D	Sqm	8	1.40		2.50	28.00
	Door-D1	Sqm	2	1.07		2.00	4.00
	Door-D2	Sqm	1	1.20		2.10	3.00
	Window-W	Sqm	1	1.20		1.50	2.00
	Window-W1	Sqm	20	1.25		1.25	31.00
	Window-W2	Sqm	10	1.26		1.22	15.00
	Old Anganavadi						
	Door	Sqm	1	1.03		2.00	2.00
		Sqm			Total		85.00
	Total 70% Quantity	Sqm			Total		59.50
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	School Building						
	Class room	Sqm	4	19.75		4.70	371.00
	Staff Room	Sqm	2	9.10		4.70	86.00
	Stage	Sqm	1	5.80		0.45	3.00
	Stage	Sqm	3	13.50		4.25	172.00
	Class room	Sqm	2	20.95		4.70	197.00
	Class room	Sqm	2	12.00		4.70	113.00
	Class room	Sqm	2	11.80		4.70	111.00
	Ded						
	Door-D	Sqm	-8	1.40		2.50	-28.00
	Door-D1	Sqm	-2	1.07		2.00	-4.00
	Door-D2	Sqm	-1	1.20		2.10	-3.00
	Window-W	Sqm	-1	1.20		1.50	-2.00
	Window-W1	Sqm	-20	1.25		1.25	-31.00
	Window-W2	Sqm	-10	1.26		1.22	-15.00
	Toilet Block						
	Toilet 1	Sqm	2	2.81		2.50	14.00
	Toilet 2	Sqm	2	2.61		2.50	13.00
	Toilet 3	Sqm	2	2.61		2.50	13.00
	Toilet 4	Sqm	2	2.55		2.50	13.00
	Toilet 5	Sqm	2	3.61		2.50	18.00
	Toilet 6	Sqm	2	4.35		2.50	22.00
	Washroom Area	Sqm	2	4.44		2.50	22.00
	Ded						
	Door-D	Sqm	-6	0.70		1.80	-8.00
	Door-D1	Sqm	-1	1.20		2.00	-2.00
	Ventilator-V	Sqm	-2	0.75		0.45	-1.00
	ceiling	Sqm	1	28.00	Area		28.00
	Old Anganavadi						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Class Room	Sqm	2	8.78		3.30	58.00
	Ded	Sqm					0.00
	Door-D	Sqm	-1	1.03		2.00	-2.00
	Window-W	Sqm	-4	1.20		1.20	-6.00
	Total Quantity	Sqm			Total		1152.00
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	School Building	Sqm	1				875.52
		Sqm			Total		875.52
	Total 60% Quantity	Sqm					525.31
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	School Building	Sqm	1				875.52
		Sqm			Total		875.52
	Total 40% Quantity	Sqm					350.21
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	School Building	Rmt	1	77.00			77.00
		Rmt			Total		77.00
	Total 75% Quantity	Rmt					57.75
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	School Building						
	Door-D	Sqm	8	1.40		2.50	28.00
	Door-D1	Sqm	2	1.07		2.00	4.28
	Door-D2	Sqm	1	1.20		2.10	2.52
	Window-W	Sqm	1	1.20		1.50	1.80
	Window-W1	Sqm	20	1.25		1.25	31.25
	Window-W2	Sqm	10	1.26		1.22	15.37
	Wooden Column	Sqm	48	0.40		2.50	48.00
	Old Anganavadi Block						
	Door	Sqm	1	1.03		2.00	2.06
		Sqm			Total		133.28
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	School Building						
	Door-D	Sqm	8	1.40		2.50	28.00
	Door-D1	Sqm	2	1.07		2.00	4.28
	Door-D2	Sqm	1	1.20		2.10	2.52
	Window-W	Sqm	1	1.20		1.50	1.80
	Window-W1	Sqm	20	1.25		1.25	31.25
	Window-W2	Sqm	10	1.26		1.22	15.37
	Wooden Column	Sqm	48	0.40		2.50	48.00
	Old Anganavadi Block						
	Door	Sqm	1	1.03		2.00	2.06
		Sqm			Total		133.28

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	School Building	Sqm	1	150.00		0.45	67.50
	Toilet Block	Sqm	1	22.24		0.45	10.01
	Toilet Rcc Slab	Sqm	1	28.00	Area		28.00
	Old Anganavadi Block	Sqm	1	19.40		0.45	8.73
		Sqm			Total		114.24
35	KSRB 9.4-1 : Providing Teak wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, HOM of machineries complete as per specifications. Specification No. KBS 9.33. (P.No.53, I.No. 9.10 of PWD SR 2018-19)						
	Wooden Pergola	Cum	1.00	19.00	5.00	0.035	3.33
		Cum	2.00	19.00	0.035	2.40	3.19
		Cum			Total		6.52
36	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resisitant. Welding shall confirm to latest structural welding code. Quality shall be on various parametres like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and wleding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)					Kg/Sqm	
	Stage	Kg	1	8.00	6.00	25	1200.00
		Kg					1200.00
37	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., compelte as per specifications. (P.No.51, SI.No. 8.29 of PWD SR 2018-19)						
	Stage	Sqm	1	8.00	6.00		48.00
		Sqm					48.00
38	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Total Area	Rmt	1.00	213.00			213.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Total Qty	Rmt			Total		213.00
39	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Passage Area	Sqm	1.00	30.00	4.17		125.00
	Backside Building	Sqm	1.00	60.00	1.58		95.00
	Near Stage	Sqm	1.00	25.00	2.12		53.00
	Frontside Building	Sqm	1.00	35.00	3.14		110.00
	Near Computer Lab	Sqm	1.00	25.00	1.88		47.00
	Backside Compound wall side	Sqm	1.00	40.00	2.10		84.00
	Near Toilet Side	Sqm	1.00	25.00	1.36		34.00
	Backside Sitting area	Sqm	1.00	10.00	1.80		18.00
	Other Area	Sqm	1.00	13.00	1.38		18.00
	Total Qty	Sqm					584.00
	Total Qty -20%	Sqm			Total		116.80
40	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Badminton Court	Sqm	1.00	13.40	6.10		81.74
		Sqm			Total		81.74
41	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Badminton Court	Sqm	1.00	13.40	6.10		81.74
		Sqm			Total		81.74
42	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)						
	Total Qty SI No.39	Sqm	1.00	584.00	Area		584.00
	Total 30% Qty	Sqm			Total		175.20
43	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Total Qty SI.No.39	Sqm	1.00	584.00	Area		584.00
	Total 50% Qty	Sqm			Total		292.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
44	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)						
	Total Qty -Back & Front side of the building	Sqm	1.00	595.00	Area		595.00
	Total Qty	Sqm			Total		595.00
45	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.4	0.06
	Total Qty	Rmt	1.00	213.00			213.00
	Total Qty (0.45m Length)	No			Total		473.00
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)						
	Badminton Ground	Rmt	2.00	1.55			3.10
	Total Qty	Rmt			Total		3.10
47	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)						
	Entrance Area	Sqm	2.00	10.00	0.15		3.00
	Circular	Sqm	1.00	5.00	0.15		0.75
	Total Qty	Sqm			Total		3.75

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MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - PANDESHWARA

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14			
	Basic Rate		725.00	
	Sub Total		725	
	add 10% For Area weightage		72.50	
	Total	Rate	797.50	Sqm
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm

16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16				
	Basic Rate			361.00	
	Sub Total			361	
	add 10% For Area weightage			36.10	
	Total	Rate		397.10	Sqm
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229				
	Basic Rate			147.00	
	Sub Total			147	
	add 10% For Area weightage			14.70	
	Total	Rate		161.70	Nos
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7				
	Basic Rate			120.00	
	Sub Total			120	
	add 10% For Area weightage			12.00	
	Total	Rate		132.00	Cum
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia				
	Basic Rate			606.00	
	Sub Total			606	
	add 10% For Area weightage			60.60	
	Total	Rate		666.60	Rmt
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)				
	Basic Rate			893.00	
	Sub Total			893	
	Total	Rate		893.00	Each
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133				
	Basic Rate			277	
	Sub Total			277	
	Add 10% For Area weightage			27.70	
	Total	Rate		304.70	Sqm

22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
24	KSRB 14.14-5: Providing Ceramic tiles of approved make, shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment, including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19, SI No.14.36.2, Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
26	Repairing door and window frames with available wood to the required size. PWD 18-19, SI No.37.12, Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19, SI No.37.13, Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm

28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119		
	Basic Material Rate		90.00
	Sub Total		90
	Add 10% For Area weightage for Labour		9.00
	Total	Rate	99.00 Sqm
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267		
	Basic Rate		407.00
	Sub Total		407
	Add 10% For Area weightage		40.70
	Total Rate	Rate	447.70 Sqm
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11		
	Basic Rate		814.00
	Sub Total		814
	Add 10% For Area weightage		81.40
	Total Rate	Rate	895.40 Sqm
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267		
	Baisc rate		101.00
	Sub Total		101
	Add 10% For area weightage (Mangalore City)		10.10
	Total Rate	Rate	111.10 Rmt
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123		
	Basic Rate		56.00
	Sub Total		56
	Add 10% For Area weightage		5.60
	Total Rate	Rate	61.60 Sqm
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123		
	Basic Rate		50.00
	Sub Total		50
	Add 10% For Area weightage		5.00
	Total Rate	Rate	55.00 Sqm

34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
35	KSRB 9.4-1 : Providing Teak wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, HOM of machineries complete as per specifications. Specification No. KBS 9.33. (P.No.53, I.No. 9.10 of PWD SR 2018-19)			
	Basic Rate		213754.00	
	Sub Total		213754.00	
	Add 10% For Area weightage		21375.40	
	Total Rate	Rate	235129.40	Cum
36	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resitant. Welding shall confirm to latest structural welding code. Quality shall be on various parametres like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and wleding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)			
	Basic Rate		111.00	
	Sub Total		111.00	
	Add 10% For Area weightage		11.10	
	Total Rate	Rate	122.10	Kg
37	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., compelte as per specifications. (P.No.51, SI.No. 8.29 of PWD SR 2018-19)			
	Basic Rate		721.00	
	Sub Total		721.00	
	Add 10% For Area weightage		72.10	
	Total Rate	Rate	793.10	Sqm
38	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowring plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt

39	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm
40	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm
41	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm
42	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)			
	Basic Rate		2067.00	
	Sub Total		2067.00	
	Total Rate	Rate	2067.00	Sqm
43	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm

44	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)			
	Basic Rate		9.00	
	Sub Total		9.00	
	Add 10% For Area weightage		0.90	
	Total Rate	Rate	9.90	Sqm
45	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)			
	Basic Rate		468.00	
	Sub Total		468.00	
	Add 10% For Area weightage		46.80	
	Total Rate	Rate	514.80	Nos
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)			
	Basic Rate		447.00	
	Sub Total		447.00	
	Add 10% For Area weightage		44.70	
	Total Rate	Rate	491.70	Rmt
47	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)			
	Basic Rate		429.00	
	Sub Total		429.00	
	Add 10% For Area weightage		42.90	
	Total Rate	Rate	471.90	Sqm

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**Name of the Work :- Manglore Smart City
Rate Analysis for Grass Paver Block**

Sr.No.	Description	Unit	Qty.	Rate	Amount	References
2	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.					
	Details of cost for 10.00 sqm					
A	MATERIAL					
i	Interlocking C.C. paver block	Sqm	10	1631.114	16311.14	Basant Betons, Quotation
ii	Bedding layer - 50mm thick Coarse sand (zone III)=10x0.050=0.50 cum	Cum	0.5	1700	850	KPWD 18-19, SI No-51
iii	Carriage of Coarse sand-25Km	Cum	0.5	80	40	
iv	Fine sand (zone IV)	Cum	0.15	1700	255	KPWD 18-19, Material rate-54
v	Carriage of Coarse sand-25Km	Cum	0.15	80	12	
vi	Laying charges (Based on actual observation)					
B	LABOUR					
i	Mason (brick layer) 1st class	Day	0.5	466.2	233.1	KPWD 18-19, Labour rate-12
ii	Mason (brick layer) 2nd class	Day	0.5	456.2	228.1	KPWD 18-19, Labour rate-13
iii	Mazdoor Heavy	Day	1	446.2	446.2	KPWD 18-19, Labour rate-6
iv	Mazdoor Light/Bisti	Day	0.5	446.2	223.1	KPWD 18-19, Labour rate-7
	Total				18598.64	
	Add 1 % Water charges				185.9864	
	Total				18784.63	
	Add 10 % Contractor's profit and overheads				1878.46	
	Cost for 10.00 sqm				20663.09	
	Cost for 1.00 sqm.				2066.309	
	Say				2067	

**Assistant Engineer
MSCL Mangaluru**

**Executive Engineer
MSCL Mangaluru**

**G M Technical
MSCL Mangaluru**

Name of the Work :- Mangalore Smart City

Basant Betons for Paver Block Quotation

Sr.No.	Description	Unit	Basic Rate	Transportation	Final Rate
1	Artline grass pavers	Sqm	1400	231.114	1631.11

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MANGALURU SMART CITY

1.1 Grand Summary of E-Smart school - LP & HS Urdu Bunder

Sr. No.	Description	Cost In INR
1	E-Smart School - LP & HS Urdu Bunder	
a	Building & Compound wall works	5,820,913
b	Electrical Works	384,052
c	Plumbing Works	268,765
d	External Development - Softscape & Hardscape	2,866,973
	Total Cost	9,340,703

**Executive Engineer
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MANGALURU SMART CITY
1.2 BOQ of E-Smart School - LP & HS URDU BUNDER

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.19	28330.50	5,383
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	885.32	5.50	4,869
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	43.77	3730.10	163,266
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	373.31	300.30	112,105
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	2868.45	112.20	321,840
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	223.32	374.00	83,522
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	1400.00	0.77	1,078
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	15000.00	0.39	5,775
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	51.34	67.10	3,445

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	310.10	328.90	101,992
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	26.11	6490.00	169,454
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	76.42	6817.80	521,016
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	5.73	77860.20	446,256
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	284.37	289.30	82,268
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	623.14	397.10	247,449
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	22.00	161.70	3,557
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	170.48	132.00	22,503

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	33.00	666.60	21,998
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)	Each	11.00	893.00	9,823
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	1049.45	304.70	319,769
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	748.93	1452.00	1,087,446
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	42.81	5280.00	226,037
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	434.37	1332.10	578,624
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	48.48	7914.50	383,695
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	80.50	753.50	60,657
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	80.50	753.50	60,657
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	2373.08	99.00	234,935
28	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	114.03	61.60	7,024

Sr .No.	Description	Unit	Quantity	Rate	Amount
29	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	114.03	55.00	6,272
30	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	912.89	578.60	528,198
B	External Development - Softscape & Hardscape				
31	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	660.00	1446.50	954,690
32	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowring plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	130.00	50.60	6,578
33	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	617.00	25.30	15,610
34	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149	Sqm	617.00	101.20	62,440
35	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)	Sqm	449.00	2067.00	928,083
36	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually alround the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	617.00	9.90	6,108

Sr .No.	Description	Unit	Quantity	Rate	Amount
37	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p>				
	<p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF-STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p>				
	<p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM</p>	Sqm	202.00	2600.00	525,200
38	<p>Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheidl putty/ EUCO700 all in complete as per manufacturer direction or EIC.</p>	Rmt	404.00	130.00	52,520
39	<p>To supply and apply Green Label certified Decksheidl system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC</p>	Sqm	202.00	1400.00	282,800

Sr .No.	Description	Unit	Quantity	Rate	Amount
40	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 dia 40 mm dia	Rmt	67.00	491.70	32,944
GRAND TOTAL					8,687,886

GST @12% on SOR & Non SOR	7817543	938105
GST @18% on Market	860520	154894

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MANGALURU SMART CITY

1.3 Measurement of E-SMART SCHOOL - LP & HS Urdu Bunder

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	3194.00	Area		3194.00
	Ded	Sqm	-1	1294.00	Area		-1294.00
		Sqm					1900.00
		Ha					0.190
2	KS RB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	48.80		1.80	175.68
	Right side	Sqm	2	64.90		1.80	233.64
	Left side	Sqm	2	76.60		2.00	306.40
	Back side	Sqm	2	38.20		2.00	152.80
	Pillar	Sqm	2	2.00		1.80	7.20
	Pillar	Sqm	2	2.40		2.00	9.60
		Sqm			Total		885.32
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	19.52	0.23	1.80	8.08
	Right side	Cum	1	25.96	0.23	1.80	10.75
	Left side	Cum	1	30.64	0.23	2.00	14.09
	Back side	Cum	1	15.28	0.23	2.00	7.03
	Pillar	Cum	2	0.80	0.23	1.80	0.66
	Pillar	Cum	2	0.96	0.23	2.00	0.88
	Sitting	Cum	6	1.65	0.23	1.00	2.28
	Total Quantity	Cum			Total		43.77
4	KS RB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	19.52		1.80	70.27
	Right side	Sqm	2	25.96		1.80	93.46
	Left side	Sqm	2	30.64		2.00	122.56
	Back side	Sqm	2	15.28		2.00	61.12
	Pillar	Sqm	2	0.80		1.80	2.88
	Pillar	Sqm	2	0.96		2.00	3.84
	Sitting	Sqm	12	1.88		0.85	19.18
	Total Quantity	Sqm			Total		373.31
5	KS RB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	48.80		1.80	175.68
	Right side	Sqm	2	64.90		1.80	233.64
	Left side	Sqm	2	76.60		2.00	306.40
	Back side	Sqm	2	38.20		2.00	152.80
	Pillar	Sqm	2	2.00		1.80	7.20
	Pillar	Sqm	2	2.40		2.00	9.60
	Block 2						
	Outside Building -GF	Sqm	1	34.72		3.45	119.78
	Ded						
	Door-D2	Sqm	-1	1.20		2.10	-2.52

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Window-W	Sqm	-2	1.20		1.35	-3.24
	Window-W3	Sqm	-2	1.50		1.30	-3.90
	Store & Toilet Outside wall - GF	Sqm	1	15.25		2.80	42.70
	Ded						
	Door-D	Sqm	-1	1.00		2.00	-2.00
	Window-W	Sqm	-2	1.20		1.35	-3.24
	Rolling Shutter	Sqm	-1	1.10		2.10	-2.31
	Ventilator-V	Sqm	-2	0.15		0.25	-0.08
	Computer Lab -FF	Sqm	1	34.44		3.50	120.54
	Ded						
	Rolling Shutter	Sqm	-1	2.44		2.10	-5.12
	Window-W3	Sqm	-2	2.40		1.31	-6.29
	Sliding Window-SW	Sqm	-2	1.60		1.50	-4.80
	Parapet wall	Sqm	2	10.76		0.75	16.14
	Parapet wall	Sqm	2	10.76		0.25	5.38
	Ceiling						
	GF	Sqm	1	10.76	1.40		15.06
	FF	Sqm	1	10.76	1.40		15.06
	Staircase Handwall	Sqm	1	15.00		1.00	15.00
	Ramp Side	Sqm	1	0.70		0.15	0.11
	Sitting	Sqm	12	1.88		0.85	19.18
	Block 3						
	Outside wall	Sqm	1	82.92		3.50	290.22
	Ded						
	Door-D	Sqm	-4	1.00		2.00	-8.00
	Window-W	Sqm	-6	0.90		1.20	-6.48
	Window-W1	Sqm	-12	0.90		1.36	-14.69
	Rolling Shutter	Sqm	-1	1.15		2.60	-2.99
	Parapet wall	Sqm	2	86.62		0.78	134.26
	Column	Sqm	11	1.50		3.00	49.50
	Chejja						
	Window-W	Sqm	12	1.20	0.60		8.64
	Window-W1	Sqm	8	1.20	0.60		5.76
	Block 4						
	Outside Building-GF	Sqm	1	75.54		3.50	264.39
	Outside Building-FF	Sqm	1	75.54		3.24	244.75
	Ded						
	Door-D	Sqm	-11	1.00		2.00	-22.00
	Window-W	Sqm	-12	0.90		1.20	-12.96
	Window-W1	Sqm	-5	0.60		0.90	-2.70
	Column	Sqm	26	0.79		3.00	61.29
	Ramp Side	Sqm	2	1.50		0.25	0.75
	Parapet wall	Sqm	2	31.00		1.07	66.34
	Parapet wall	Sqm	2	75.54		0.42	63.45
	Ceiling	Sqm	2	31.00	1.80		111.60
	Block 5						
	Outside Building-GF	Sqm	1	42.56		3.50	148.96
	Ded						
	Rolling Shutter	Sqm	-1	1.05		2.10	-2.21
	Door-D2	Sqm	-1	1.05		2.10	-2.21
	Window-W	Sqm	-4	1.34		1.60	-8.58
	Window-W1	Sqm	-2	1.50		1.33	-3.99
	Window-W2	Sqm	-2	1.50		1.30	-3.90
	Outside Building-FF	Sqm	1	27.44		3.13	85.75
	Ded						
	Rolling Shutter	Sqm	-1	1.05		2.10	-2.21
	Window-W	Sqm	-2	1.34		1.60	-4.29
	Window-W2	Sqm	-2	1.50		1.30	-3.90
	Staircase Handwall	Sqm	2	10.00		1.00	20.00
		Sqm	1	10.00	0.85		8.50
	Column-C1	Sqm	8	1.00		2.70	21.60
	Parapet wall	Sqm	2	17.00		1.18	39.95
	Terrcae Parapet wall	Sqm	2	14.20		0.45	12.78
	Ceiling-GF	Sqm	1	16.00	1.82		29.12
	Ceiling-FF	Sqm	1	9.00	1.82		16.38
	Block 7						
	Outside Building	Sqm	1	21.40		3.30	70.62
	Ded						
	Door-D	Sqm	-2	1.00		2.10	-4.20
	Window-W1	Sqm	-1	0.90		1.00	-0.90
	Ventilator-V	Sqm	-2	0.60		0.60	-0.72
		Sqm				Total	2868.45

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	48.80		1.80	87.84
	B2 Block	Sqm	2	10.30		1.20	24.72
	B3 Block	Sqm	1	36.30		1.20	43.56
	B4 Block	Sqm	1	31.00		1.20	37.20
	B5 Block	Sqm	1	25.00		1.20	30.00
		Sqm			Total		223.32
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	28	50.00			1400.00
		Cm			Total		1400.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	15000				15000.00
		Ltr			Total		15000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate-1st	Sqm	1	2.70		2.00	5.40
	Entrance Gate-2nd	Sqm	1	1.50		2.00	3.00
	B2 Block Rolling Shutter	Sqm	2	2.40		2.10	10.08
	B2 Block Rolling Shutter	Sqm	2	1.10		2.10	4.62
	B3 Block Rolling Shutter	Sqm	2	1.15		2.60	5.98
	Ramp Handrail	Sqm	1	2.00		1.00	2.00
	B4 Rolling Shutter	Sqm	2	2.20		2.60	11.44
	B5 Rolling Shutter	Sqm	4	1.05		2.10	8.82
		Sqm			Total		51.34
10	KSRRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	Block 2	Cum	1	34.72	0.30	0.45	4.69
		Cum	1	15.25	0.30	0.45	2.06
	Block 3	Cum	1	82.92	0.30	0.45	11.19
	Block 4	Cum	1	75.54	0.30	0.45	10.20
	Block 5	Cum	1	42.56	0.30	0.45	5.75
	Block 7	Cum	1	21.40	0.30	0.45	2.89
	RCC Covered Drain						
	SWD - 0.45m Clear Width	Cum	1	237.79	0.95	0.96	216.86
	SWD - 0.60m Clear Width	Cum	1	27.06	1.10	1.18	34.98
	SWD Chamber	Cum	11	0.70	0.70	0.50	2.70
	UPVC Pipe	Cum	1	33.00	0.75	0.76	18.78
		Cum			Total		310.10

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	PCC for Raft						
	SWD - 0.45m Clear Width	Cum	1	237.79	0.95	0.10	22.59
	SWD - 0.60m Clear Width	Cum	1	27.06	1.10	0.10	2.98
	SWD Chamber	Cum	11	0.70	0.70	0.10	0.54
					Total		26.11
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD - 0.45m Clear Width	Cum	1	237.79	0.65	0.15	23.18
	SWD - 0.60m Clear Width	Cum	1	27.06	0.80	0.15	3.25
	SWD Chamber	Cum	11	0.50	0.50	0.10	0.28
	Side wall						
	SWD - 0.45m Clear Width	Cum	2	237.79	0.10	0.56	26.63
	SWD - 0.60m Clear Width	Cum	2	27.06	0.10	0.775	4.19
	SWD Chamber	Cum	11	1.20	0.10	0.30	0.40
	Covered Slab						
	SWD - 0.45m Clear Width	Cum	1	237.79	0.45	0.15	16.05
	SWD - 0.60m Clear Width	Cum	1	27.06	0.60	0.15	2.44
		Cum					76.42
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	26.71	75		2003.25
	Side wall	Kg	1	31.22	75		2341.50
	Covered Slab	Kg	1	18.49	75		1386.75
		Kg					5731.50
		MT					5.73
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD - 0.45m Clear Width	Sqm	2	237.79		0.15	71.34
	SWD - 0.60m Clear Width	Sqm	2	27.06		0.15	8.12
	SWD Chamber	Sqm	11	2.00		0.10	2.20
	RCC Covered Drain						
	Slab Bottom						
	SWD - 0.45m Clear Width	Sqm	1	237.79	0.45		107.01
	SWD - 0.60m Clear Width	Sqm	1	27.06	0.60		16.24
	Slab side						
	SWD - 0.45m Clear Width	Sqm	2	237.79		0.15	71.34
	SWD - 0.60m Clear Width	Sqm	2	27.06		0.15	8.12
		Sqm					284.37

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD - 0.45m Clear Width	Sqm	4	237.79		0.56	532.65
	SWD - 0.60m Clear Width	Sqm	4	27.06		0.78	83.89
	SWD Chamber	Sqm	11	2.00		0.30	6.60
		Sqm					623.14
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28,10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	22.00				22.00
		Nos					22.00
17	KSRRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				273.32
	PCC Qty	Cum	-1				-26.11
	RCC Qty	Cum	-1				-76.42
	UPVC Pipe 110mm Dia	Cum	-1	33.00	0.01		-0.31
		Cum					170.48
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	33.00			33.00
		Rmt					33.00
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	11.00				11.00
		Each					11.00
20	KSRRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	Block 2						
	Outside wall	Sqm	1	34.72		3.45	119.78
	Store & Toilet Outside wall - GF	Sqm	1	15.25		2.80	42.70
	Computer Lab -FF	Sqm	1	34.44		3.50	120.54
	Block 3	Sqm	1	82.92		4.28	354.48
	Block 4	Sqm	1	75.54		6.74	509.14
	Block 5	Sqm	1	42.56		6.63	281.96
	Block 7	Sqm	1	21.40		3.30	70.62
		Sqm				Total	1499.22
	Total 70% Quantity	Sqm				Total	1049.45

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	Block 3						
	Office	Sqm	1	7.10	4.70		33.37
	Skirting	Sqm	1	23.60		0.15	3.54
	Block 5						
	Staff	Sqm	1	7.46	5.20		38.79
	Skirting	Sqm	1	25.32		0.15	3.80
	Block 2						
	Class Room	Sqm	1	10.30	6.00		61.80
	Skirting	Sqm	1	32.60		0.15	4.89
	Corridor-GF	Sqm	1	10.53	1.40		14.74
	Skirting	Sqm	1	10.53		0.15	1.58
	Corridor-FF	Sqm	1	10.86	1.40		15.20
	Skirting	Sqm	1	10.86		0.15	1.63
	Block 3						
	Class Room	Sqm	1	8.55	4.70		40.19
	Skirting	Sqm	1	26.50		0.15	3.98
	Class Room	Sqm	1	7.73	4.70		36.33
	Skirting	Sqm	1	24.86		0.15	3.73
	Class room	Sqm	1	5.70	4.70		26.79
	Skirting	Sqm	1	20.80		0.15	3.12
	Class Room	Sqm	1	7.20	4.70		33.84
	Skirting	Sqm	1	23.80		0.15	3.57
	Corridor	Sqm	1	36.30	1.85		67.16
	Skirting	Sqm	1	36.30		0.15	5.45
	Block 4						
	Class Room	Sqm	1	4.95	6.45		31.93
	Skirting	Sqm	1	22.80		0.15	3.42
	Class Room	Sqm	1	8.70	6.45		56.12
	Skirting	Sqm	1	30.30		0.15	4.55
	Class Room	Sqm	1	8.70	6.44		56.03
	Skirting	Sqm	1	30.28		0.15	4.54
	Corridor-GF	Sqm	1	31.00	1.80		55.80
	Skirting	Sqm	1	31.00		0.15	4.65
	Corridor-FF	Sqm	1	31.00	1.80		55.80
	Skirting	Sqm	1	31.00		0.15	4.65
	Staircase Room	Sqm	1	2.20	6.70		14.74
	Block 5						
	Corridor-GF	Sqm	1	15.65	1.80		28.17
	Skirting	Sqm	1	15.65		0.15	2.35
	Corridor-FF	Sqm	1	8.10	1.80		14.58
	Skirting	Sqm	1	8.10			8.10
	Total Qty	Sqm			Total		748.93
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	Block 5						
	Principal Chamber	Sqm	1	7.50	5.20		39.00
	Skirting	Sqm	1	25.40		0.15	3.81
	Total Qty	Sqm			Total		42.81
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108						
	Block 2						
	Store Room	Sqm	1	1.65	5.10		8.42
	Skirting	Sqm	1	13.50		0.15	2.03
	Toilet	Sqm	1	2.00	5.10		10.20
	Dadooing	Sqm	1	14.20		2.00	28.40
	Ded						
	Door-D	Sqm	-1	1.00		2.00	-2.00
	Window-W	Sqm	-1	1.20		1.35	-1.62
	Ventilator-V	Sqm	-2	0.15		0.25	-0.08
	Computer Lab	Sqm	1	10.30	6.00		61.80

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Skirting	Sqm	1	32.60		0.15	4.89
	Block 4						
	Kitchen	Sqm	1	4.95	6.44		31.88
	Skirting	Sqm	1	22.78		0.15	3.42
	Hall	Sqm	1	4.95	6.44		31.85
	Skirting	Sqm	1	22.77		0.15	3.42
	Hall	Sqm	1	17.63	6.44		113.54
	Skirting	Sqm	1	48.14		0.15	7.22
	Store	Sqm	1	1.57	6.44		10.11
	Skirting	Sqm	1	16.02		0.15	2.40
	Block 5						
	Lab Room	Sqm	1	7.60	5.20		39.52
	Skirting	Sqm	1	25.60		0.15	3.84
	Block 7						
	Toilet Room	Sqm	1	2.95	4.34		12.80
	Dadoing	Sqm	2	7.29		2.10	30.62
	Toilet Room	Sqm	1	2.26	4.34		9.81
	Dadoing	Sqm	2	6.60		2.10	27.72
	Ded						
	Door-D	Sqm	-2	1.00		2.10	-4.20
	Window-W1	Sqm	-1	0.90		1.00	-0.90
	Ventilator-V	Sqm	-2	0.60		0.60	-0.72
	Total Qty	Sqm			Total		434.37
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	Block 2						
	Staircase GF-FF Tread	Sqm	36	0.75	0.15		4.05
	Staircase GF-FF Riser	Sqm	38	0.75		0.15	4.28
	Landing	Sqm	1	1.55	1.00		1.55
	Ramp	Sqm	1	1.40	0.65		0.91
	Sitting	Sqm	6	1.65	0.23		2.28
	Block 4						
	Staircase GF-FF Tread	Sqm	28	1.05	0.25		7.35
	Staircase GF-FF Riser	Sqm	30	1.05		0.15	4.73
	Landing	Sqm	1	2.20	1.00		2.20
	Entry Step Tread	Sqm	6	1.80	0.30		3.24
	Entry Step Riser	Sqm	8	1.80		0.15	2.16
	Ramp	Sqm	1	1.50	1.80		2.70
	Block 5						
	Staircase Tread	Sqm	22	0.78	0.25		4.29
	Staircase Riser	Sqm	23	0.78		0.15	2.69
	Entry Step Tread	Sqm	4	1.86	0.25		1.86
	Entry Step Riser	Sqm	6	1.86		0.15	1.67
	Block 7						
	Entry Step Tread	Sqm	4	1.20	0.30		1.44
	Entry Step Riser	Sqm	6	1.20		0.15	1.08
	Total Qty	Sqm			Total		48.48
25	Repairing door and window frames with available wood to the required size. PWD 18-19, SI No.37.12, Pg No 267						
	Block 2						
	Door-D	Sqm	1	1.00		2.00	2.00
	Door-D2	Sqm	1	1.20		2.10	3.00
	Window-W	Sqm	2	1.20		1.35	3.00
	Window-W2	Sqm	2	0.75		1.25	2.00
	Window-W3	Sqm	4	1.50		1.25	8.00
	Block 3						
	Door-D	Sqm	4	1.00		2.00	8.00
	Window-W	Sqm	6	0.90		1.20	6.00
	Window-W1	Sqm	12	0.90		1.36	15.00
	Block 4						
	Door-D	Sqm	12	1.00		2.00	24.00
	Window-W	Sqm	13	0.90		1.20	14.00
	Window-W1	Sqm	4	0.60		0.90	2.00
	Block 5						
	Door-D2	Sqm	1	1.05		2.10	2.00
	Window - W	Sqm	6	1.34		1.60	13.00
	Window - W1	Sqm	2	1.5		1.33	4.00
	Window - W2	Sqm	2	1.50		1.30	4.00
	Block 7						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Door-D	Sqm	2	1.00		2.10	4.00
	Window-W1	Sqm	1	0.90		1.00	1.00
		Sqm			Total		115.00
	Total 70% Quantity	Sqm			Total		80.50
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	Block 2						
	Door-D	Sqm	1	1.00		2.00	2.00
	Door-D2	Sqm	1	1.20		2.10	3.00
	Window-W	Sqm	2	1.20		1.35	3.00
	Window-W2	Sqm	2	0.75		1.25	2.00
	Window-W3	Sqm	4	1.50		1.25	8.00
	Block 3						
	Door-D	Sqm	4	1.00		2.00	8.00
	Window-W	Sqm	6	0.90		1.20	6.00
	Window-W1	Sqm	12	0.90		1.36	15.00
	Block 4						
	Door-D	Sqm	12	1.00		2.00	24.00
	Window-W	Sqm	13	0.90		1.20	14.00
	Window-W1	Sqm	4	0.60		0.90	2.00
	Block 5						
	Door-D2	Sqm	1	1.05		2.10	2.00
	Window - W	Sqm	6	1.34		1.60	13.00
	Window - W1	Sqm	2	1.50		1.33	4.00
	Window - W2	Sqm	2	1.50		1.30	4.00
	Block 7						
	Door-D	Sqm	2	1.00		2.10	4.00
	Window-W1	Sqm	1	0.90		1.00	1.00
							115.00
	Total 70% Quantity	Sqm			Total		80.50
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Block 2						
	Class Room	Sqm	2	16.30		3.20	104.00
	Store Room	Sqm	2	6.75		2.50	34.00
	Toilet	Sqm	2	7.10		2.50	36.00
	Computer Lab	Sqm	2	16.30		3.20	104.00
	Ded						
	Door-D	Sqm	-1	1.00		2.00	-2.00
	Door-D2	Sqm	-1	1.20		2.10	-3.00
	Rolling Shutter	Sqm	-1	1.10		2.10	-2.00
	Rolling Shutter-1	Sqm	-1	2.44		2.10	-5.00
	Window-W	Sqm	-2	1.20		1.35	-3.24
	Window-W2	Sqm	-2	0.75		1.25	-1.88
	Window-W3	Sqm	-4	1.50		1.25	-8.00
	Sliding Window	Sqm	-2	1.60		1.25	-4.00
	Ventilator-V	Sqm	-2	0.15		0.25	-0.08
	Ceiling	Sqm	2	10.76	6.60		142.03
	Block 3						
	Office	Sqm	2	11.80		3.00	70.80
	Class Room	Sqm	2	13.25		3.00	80.00
	Class Room	Sqm	2	12.43		3.00	75.00
	Class room	Sqm	2	10.40		3.00	62.00
	Class Room	Sqm	2	11.90		3.00	71.00
	Ded						
	Door-D	Sqm	-4	1.00		2.00	-8.00
	Window-W	Sqm	-6	0.90		1.20	-6.00
	Window-W1	Sqm	-12	0.90		1.36	-15.00
	Rolling Shutter	Sqm	-1	1.15		2.60	-3.00
	Ceiling	Sqm	1	36.00	6.99		252.00
	Block 4						
	Class Room	Sqm	2	11.40		3.00	68.00
	Class Room	Sqm	2	15.15		3.00	91.00
	Class Room	Sqm	2	15.14		3.00	91.00
	Kitchen	Sqm	2	11.39		3.00	68.00
	Hall	Sqm	2	11.39		3.00	68.00
	Hall	Sqm	2	24.07		3.00	144.00
	Store	Sqm	2	8.01		3.00	48.00
	Staircase Room	Sqm	4	8.90		3.00	107.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Ded						
	Door-D	Sqm	-12	1.00		2.00	-24.00
	Window-W	Sqm	-13	0.90		1.20	-14.00
	Window-W1	Sqm	-3	0.60		0.90	-2.00
	Rolling Shutter	Sqm	-1	2.20		2.60	-6.00
	Ceiling						
	GF	Sqm	1	195.00	Area		195.00
	Ded	Sqm	-1	6.67	2.20		-14.67
	FF	Sqm	1	195.00	Area		195.00
	Ded	Sqm	-1	6.67	2.20		-14.67
	Block 5						
	Staff	Sqm	2	12.66		3.00	75.96
	Principal Chamber	Sqm	2	12.70		3.00	76.20
	Lab Room	Sqm	2	12.80		3.00	76.80
	Ded						
	Rolling Shutter	Sqm	-2	1.05		2.10	-4.41
	Door-D2	Sqm	-1	1.05		2.10	-2.00
	Window -W	Sqm	-6	1.34		1.60	-13.00
	Window -W1	Sqm	-2	1.50		1.33	-4.00
	Window -W2	Sqm	-4	1.50		1.30	-8.00
	Ceiling-GF	Sqm	1	15.65	5.65		88.00
	Ceiling-FF	Sqm	1	7.60	5.20		40.00
	Block 7						
	Toilet Room	Sqm	2	7.29		3.00	43.74
	Toilet Room	Sqm	2	6.60		3.00	39.60
	Ded						
	Door-D	Sqm	-2	1.00		2.10	-4.20
	Window-W1	Sqm	-1	0.90		1.00	-0.90
	Total Quantity	Sqm			Total		2373.08
28	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	Block 2						
	Door-D	Sqm	1	1.00		2.00	2.00
	Door-D2	Sqm	1	1.20		2.10	2.52
	Window-W	Sqm	2	1.20		1.35	3.24
	Window-W2	Sqm	2	0.75		1.25	1.88
	Window-W3	Sqm	4	1.50		1.25	7.50
	Block 3						
	Door-D	Sqm	4	1.00		2.00	8.00
	Window-W	Sqm	6	0.90		1.20	6.48
	Window-W1	Sqm	12	0.90		1.36	14.69
	Block 4						
	Door-D	Sqm	12	1.00		2.00	24.00
	Window-W	Sqm	13	0.90		1.20	14.04
	Window-W1	Sqm	3	0.60		0.90	1.62
	Block 5						
	Door-D2	Sqm	1	1.05		2.10	2.21
	Window -W	Sqm	6	1.34		1.60	12.86
	Window -W1	Sqm	2	1.50		1.33	3.99
	Window -W2	Sqm	2	1.50		1.30	3.90
	Block 7						
	Door-D	Sqm	2	1.00		2.10	4.20
	Window-W1	Sqm	1	0.90		1.00	0.90
	Total Qty	Sqm			Total		114.03
29	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Block 2						
	Door-D	Sqm	1	1.00		2.00	2.00
	Door-D2	Sqm	1	1.20		2.10	2.52
	Window-W	Sqm	2	1.20		1.35	3.24
	Window-W2	Sqm	2	0.75		1.25	1.88
	Window-W3	Sqm	4	1.50		1.25	7.50
	Block 3						
	Door-D	Sqm	4	1.00		2.00	8.00
	Window-W	Sqm	6	0.90		1.20	6.48
	Window-W1	Sqm	12	0.90		1.36	14.69
	Block 4						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Door-D	Sqm	12	1.00		2.00	24.00
	Window-W	Sqm	13	0.90		1.20	14.04
	Window-W1	Sqm	3	0.60		0.90	1.62
	Block 5						
	Door-D2	Sqm	1	1.05		2.10	2.21
	Window -W	Sqm	6	1.34		1.60	12.86
	Window -W1	Sqm	2	1.50		1.33	3.99
	Window -W2	Sqm	2	1.50		1.30	3.90
	Block 7						
	Door-D	Sqm	2	1.00		2.10	4.20
	Window-W1	Sqm	1	0.90		1.00	0.90
		Sqm			Total		114.03
30	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	Block 2	Sqm	1	34.72		0.45	15.62
	Rcc Slab- Computer Room	Sqm	1	10.96	8.10		88.78
	Block 3	Sqm	1	82.92		0.45	37.31
	Rcc Slab	Sqm	1	36.83	7.10		261.49
	Block 4	Sqm	1	75.54		0.45	33.99
	RCC slab	Sqm	1	31.33	9.00		281.97
	Block 5	Sqm	1	42.56		0.45	19.15
	Rcc Slab	Sqm	1	8.00	8.00		64.00
	Rcc Slab	Sqm	1	9.00	7.50		67.50
	Block 7	Sqm	1	21.40		0.45	9.63
	RCC Slab	Sqm	1	6.36	5.26		33.45
		Sqm			Total		912.89
31	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Front side Building	Sqm	1.00	120.00	2.75		330.00
	Back side Building	Sqm	1.00	95.00	3.47		330.00
	Total Qty	Sqm					660.00
32	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Total Area	Rmt	1.00	130.00			130.00
	Total Qty	Rmt			Total		130.00
33	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Center of Running Track area	Sqm	1.00	617.00	Area		617.00
		Sqm			Total		617.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
34	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Center of Running Track area	Sqm	1.00	617.00	Area		617.00
		Sqm			Total		617.00
35	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)						
	Surround Running Track	Sqm	1.00	105.00	2.35		247.00
	Right side of the Building	Sqm	1.00	66.00	1.00		66.00
	Left side of the Building	Sqm	1.00	102.00	1.00		102.00
	Front side of the Building	Sqm	1.00	34.00	1.00		34.00
		Sqm			Total		449.00
36	KSRRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRRB 18-19,Pg No.7,SI No.2.16)						
	Total Qty	Sqm	1.00	617.00	Area		617.00
	Total Qty	Sqm			Total		617.00
37	1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.						
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM						
	Running Track Ground	Sqm	1.00	101.00	2.00		202.00
	Total Qty	Sqm			Total		202.00
	CUTTING OF JOINTS						
38	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheild putty/ EUCO700 all in complete as per manufacturer direction or EIC.	Rmt	4.00	101.00			404.00
	Total Qty	Rmt			Total		404.00
	PARCKING COATING- DECKSHEILD SYSTEM- FLOWCRETE						
39	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC	Sqm	1.00	101.00	2.00		202.00
	Total Qty	Sqm			Total		202.00
40	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)						
	Cricket Ground	Rmt	13.00	3.50			45.50
		Rmt	7.00	3.00			21.00
	Total Qty	Rmt			Total		67.00

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - LP & HS Urdu Bunder

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm

16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2 do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	Add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm

22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate		90.00	
	Sub Total		90	
	Add 10% For Area weightage for Labour		9.00	
	Total	Rate	99.00	Sqm

28	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123			
	Basic Rate		56.00	
	Sub Total		56	
	Add 10% For Area weightage		5.60	
	Total Rate	Rate	61.60	Sqm
29	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123			
	Basic Rate		50.00	
	Sub Total		50	
	Add 10% For Area weightage		5.00	
	Total Rate	Rate	55.00	Sqm
30	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
31	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
32	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowring plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt

33	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm
34	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm
35	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)			
	Basic Rate		2067.00	
	Sub Total		2067.00	
	Total Rate	Rate	2067.00	Sqm
36	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)			
	Basic Rate		9.00	
	Sub Total		9.00	
	Add 10% For Area weightage		0.90	
	Total Rate	Rate	9.90	Sqm

37	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p>		
	<p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF “structural fibers” of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p>		
	<p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer’s recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM</p>		
	Basic Rate		2600.00
	Sub Total		2600.00
	Total Rate	Rate	2600.00 Sqm
38	<p>Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.</p>		
	Basic Rate		130.00
	Sub Total		130.00
	Total Rate	Rate	130.00 Rmt

39	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC		
	Basic Rate		1400.00
	Sub Total		1400.00
	Total Rate	Rate	1400.00 Sqm
40	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)		
	Basic Rate		447.00
	Sub Total		447.00
	Add 10% For Area weightage		44.70
	Total Rate	Rate	491.70 Rmt

**Executive Engineer
MSCL Mangaluru**

**G M Technical
MSCL Mangaluru**

MANGALURU SMART CITY

1.1 Grand Summary of E-Smart school - GHS HoigeBazar

Sr. No.	Description	Cost In INR
1	E-Smart School - GHS Hoigebazar	
a	Building & Compound wall works	4,119,648
b	Electrical Works	357,727
c	Plumbing Works	301,017
d	External Development - Softscape & Hardscape	901,275
	Total Cost	5,679,667

**Executive Engineer
MSCL Mangaluru**

**G M Technical
MSCL Mangaluru**

MANGALURU SMART CITY
1.2 BOQ of E-Smart School - GHS HOIGEBAZAR

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.16	28330.50	4,550
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	812.40	5.50	4,468
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	19.01	3730.10	70,909
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering. : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	162.48	300.30	48,793
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	2077.65	112.20	233,112
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	267.05	374.00	99,877
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	1550.00	0.77	1,194
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	15000.00	0.39	5,775
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	12.24	67.10	821

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	232.26	328.90	76,390
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	23.72	6490.00	153,943
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	135.71	797.50	108,229
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	28.47	6817.80	194,103
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	2.14	77860.20	166,251
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	111.57	289.30	32,277
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	239.87	397.10	95,252
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	8.00	161.70	1,294

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	61.40	132.00	8,104
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	12.00	666.60	7,999
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EO)	Each	4.00	893.00	3,572
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	508.68	304.70	154,994
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	465.74	1452.00	676,254
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	38.32	5280.00	202,330
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	464.81	1332.10	619,173
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	24.34	7914.50	192,639
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	108.80	753.50	81,981
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	108.80	753.50	81,981
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	1755.25	99.00	173,770

Sr .No.	Description	Unit	Quantity	Rate	Amount
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	309.72	447.70	138,662
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	206.48	895.40	184,882
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	47.68	111.10	5,297
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	137.11	61.60	8,446
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	137.11	55.00	7,541
34	Providing and laying non - asbestos high impact ploypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, rafters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51	Sqm	14.08	649.00	9,138
35	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	459.12	578.60	265,647
B	External Development - Softscape & Hardscape				
36	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	155.00	50.60	7,843
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EO)	Sqm	66.20	912.00	60,374

Sr .No.	Description	Unit	Quantity	Rate	Amount
38	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)	Sqm	193.00	2067.00	398,931
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to match shade of tiles, including providing spacers at required interval and removing stains, including cost of all materials, mortar, labour, etc., Complete as per specification. (KPWD 18-19, SI.No.14.45.1)	Sqm	264.80	1446.50	383,033
40	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19, Pg No.27, SI No.5.29.1)	Nos	91.00	514.80	46,847
41	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19, SI No.24.15)	Sqm	9.00	471.90	4,247
GRAND TOTAL					5,020,923

GST @12% on SOR & Non SOR 4,960,549 595266
 GST @18% on Market 0 0

**Executive Engineer
MSCL Mangaluru**

**G M Technical
MSCL Mangaluru**

MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - GHS Hoigebazar

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	2561.00	Area		2561.00
	Ded	Sqm	-1	955.00	Area		-955.00
		Sqm					1606.00
		Ha					0.161
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	55.20		1.50	165.60
	Right side	Sqm	2	57.20		1.30	148.72
	Left side	Sqm	2	55.00		2.00	220.00
	Back side	Sqm	2	66.00		2.00	264.00
	Pillar	Sqm	2	3.20		2.20	14.08
		Sqm			Total		812.40
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	11.04	0.23	1.50	3.81
	Right side	Cum	1	11.44	0.23	1.30	3.42
	Left side	Cum	1	11.00	0.23	2.00	5.06
	Back side	Cum	1	13.20	0.23	2.00	6.07
	Pillar	Cum	2	0.64	0.23	2.20	0.65
	Total Quantity	Cum			Total		19.01
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	11.04		1.50	33.12
	Right side	Sqm	2	11.44		1.30	29.74
	Left side	Sqm	2	11.00		2.00	44.00
	Back side	Sqm	2	13.20		2.00	52.80
	Pillar	Sqm	2	0.64		2.20	2.82
	Total Quantity	Sqm			Total		162.48
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	55.20		1.50	165.60
	Right side	Sqm	2	57.20		1.30	148.72
	Left side	Sqm	2	55.00		2.00	220.00
	Back side	Sqm	2	66.00		2.00	264.00
	Pillar	Sqm	2	3.20		2.20	14.08
	B1 Block						
	Outside Building-GF	Sqm	1	60.32		3.45	208.10
	Deduction						
	Door-D1	Sqm	-3	1.20		2.10	-7.56
	Window-W	Sqm	-12	1.35		1.35	-21.87
	Opening Door Grill	Sqm	-1	2.28		3.00	-6.84
	Parapet wall	Sqm	2	38.50		0.75	57.75
	Outside Building-FF	Sqm	1	52.26		3.00	156.78
	Ded						
	Door-D1	Sqm	-3	1.20		2.10	-7.56
	Window-W	Sqm	-8	1.35		1.35	-14.58

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	2.70		2.00	5.40
	Door Grill	Sqm	1	2.28		3.00	6.84
	Total Qty	Sqm			Total		12.24
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	B1 Block	Cum	1	60.32	0.30	0.45	8.14
	B2 Block	Cum	1	39.64	0.30	0.45	5.35
	B3 Block	Cum	1	43.06	0.30	0.45	5.81
	B4 Block	Cum	1	112.26	0.30	0.45	15.16
	B5 Block	Cum	1	19.75	0.30	0.45	2.67
	Entrance area	Cum	1	20.00	6.79	0.70	95.00
	RCC Covered Drain						
	SWD-0.3m Clear Width	Cum	1	48.53	0.80	0.84	32.61
	SWD - 0.45m Clear Width	Cum	1	63.89	0.95	1.00	60.39
	SWD Chamber	Cum	4	0.70	0.70	0.50	0.98
	UPVC Pipe	Cum	1	12.00	0.75	0.68	6.15
		Cum			Total		232.26
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD-0.3m Clear Width	Cum	1	48.53	0.80	0.10	3.88
	SWD - 0.45m Clear Width	Cum	1	63.89	0.95	0.10	6.07
	SWD Chamber	Cum	4	0.70	0.70	0.10	0.20
	Entrance area	Cum	1	20.00	6.79	0.10	13.57
					Total		23.72
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14						
	M15 Cement Concrete flooring for Entrance area	Sqm	1	20.00	6.79		135.71
		Sqm			Total		135.71

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD-0.3m Clear Width	Cum	1	48.53	0.50	0.15	3.64
	SWD - 0.45m Clear Width	Cum	1	63.89	0.65	0.15	6.23
	SWD Chamber	Cum	4	0.50	0.50	0.10	0.10
	Side wall						
	SWD-0.3m Clear Width	Cum	2	48.53	0.10	0.44	4.27
	SWD - 0.45m Clear Width	Cum	2	63.89	0.10	0.595	7.60
	SWD Chamber	Cum	4	1.20	0.10	0.30	0.14
	Covered Slab						
	SWD-0.3m Clear Width	Cum	1	48.53	0.30	0.15	2.18
	SWD - 0.45m Clear Width	Cum	1	63.89	0.45	0.15	4.31
		Cum					28.47
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	9.97	75		747.75
	Side wall	Kg	1	12.01	75		900.75
	Covered Slab	Kg	1	6.49	75		486.75
		Kg					2135.25
		MT					2.14
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD-0.3m Clear Width	Sqm	2	48.53		0.15	14.56
	SWD - 0.45m Clear Width	Sqm	2	63.89		0.15	19.17
	SWD Chamber	Sqm	4	2.00		0.10	0.80
	RCC Covered Drain						
	Slab Bottom						
	SWD-0.3m Clear Width	Sqm	1	48.53	0.30		14.56
	SWD - 0.45m Clear Width	Sqm	1	63.89	0.45		28.75
	Slab side						
	SWD-0.3m Clear Width	Sqm	2	48.53		0.15	14.56
	SWD - 0.45m Clear Width	Sqm	2	63.89		0.15	19.17
		Sqm					111.57
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD-0.3m Clear Width	Sqm	4	48.53		0.44	85.41
	SWD - 0.45m Clear Width	Sqm	4	63.89		0.595	152.06
	SWD Chamber	Sqm	4	2.00		0.30	2.40
		Sqm					239.87

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	8.00				8.00
		Nos					8.00
18	KSRRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				100.13
	PCC Qty	Cum	-1				-10.15
	RCC Qty	Cum	-1				-28.47
	UPVC Pipe 110mm Dia	Cum	-1	12.00	0.01		-0.11
		Cum					61.40
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1	12.00			12.00
		Rmt					12.00
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	4.00				4.00
		Each					4.00
21	KSRRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	B1 Block						
	Outside wall-GF	Sqm	1	60.32		3.45	208.10
	Parapet	Sqm	1	77.00		0.75	57.75
	Outside wall-FF	Sqm	1	52.26		3.00	156.78
	B2 Block						
	Outside wall	Sqm	1	22.24		3.33	73.95
		Sqm	1	17.40		2.90	50.46
	B3 Block						
	Outside wall	Sqm	1	43.06		3.55	152.86
	B4 Block						
	Outside wall	Sqm	1	112.26		4.75	533.24
	B5 Block						
	Outside wall	Sqm	1	10.00		2.65	26.50
		Sqm	1	3.30		1.60	5.28
		Sqm	1	6.45		1.05	6.77
		Sqm					1271.69
	Total 40% Quantity	Sqm				Total	508.68
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	Block 4						
	Staff Room	Sqm	1	6.06	5.72		34.66

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Skirting	Sqm	1	23.56		0.15	3.53
	Block 1						
	Corridor-GF	Sqm	1	23.70	1.50		35.55
	Skirting	Sqm	1	23.70		0.15	3.56
	Corridor-FF	Sqm	1	19.67	1.50		29.51
	Skirting	Sqm	1	19.67		0.15	2.95
	Class room -FF	Sqm	1	8.20	6.00		49.20
	Skirting	Sqm	1	28.40		0.15	4.26
	Staircase Room-GF	Sqm	1	2.28	6.23		14.20
	Skirting	Sqm	1	14.74		0.15	2.21
	Corridor-FF	Sqm	1	4.03	7.96		32.08
	Skirting	Sqm	1	23.98		0.15	3.60
	Block 3						
	Class room	Sqm	2	7.50	5.50		82.50
	Skirting	Sqm	2	26.00		0.15	7.80
	Corridor	Sqm	1	15.57	1.80		28.03
	Skirting	Sqm	1	15.57		0.15	2.34
	Block 4						
	Class Room	Sqm	1	6.33	5.72		36.21
	Skirting	Sqm	1	24.10		0.15	3.62
	Corridor	Sqm	1	41.83	2.00		83.66
	Skirting	Sqm	1	41.83		0.15	6.27
	Total Qty	Sqm			Total		465.74
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	Block 4						
	Principal's Room	Sqm	1	6.08	5.72		34.78
	Skirting	Sqm	1	23.60		0.15	3.54
	Total Qty	Sqm			Total		38.32
24	KSRB 14.14-5: Providing Ceramic tiles of approved make, shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment, including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19, SI No.14.36.2, Pg No.107 and 108						
	B1 Block						
	Library -GF	Sqm	1	12.30	6.00		73.80
	Skirting	Sqm	1	36.60		0.15	5.49
	Science Lab	Sqm	1	8.20	6.00		49.20
	Skirting	Sqm	1	28.40		0.15	4.26
	Art Craft & Library	Sqm	1	8.20	6.00		49.20
	Skirting	Sqm	1	28.40		0.15	4.26
	Block 2						
	Kitchen	Sqm	1	5.70	4.50		25.65
	Skirting	Sqm	1	20.40		0.15	3.06
	Boys Toilet	Sqm	1	1.90	1.75		3.33
	Dadoing	Sqm	2	3.65		2.00	14.60
	Girls Toilet	Sqm	1	2.90	1.75		5.08
	Dadoing	Sqm	2	4.65		2.00	18.60
	Ded						
	Door-D	Sqm	-2	0.90		2.00	-3.60
	Ventilator	Sqm	-5	0.60		0.50	-1.50
	Block 4						
	Sports Room	Sqm	1	2.91	5.72		16.65
	Skirting	Sqm	1	17.26		0.15	2.59
	Computer Lab	Sqm	1	6.07	5.72		34.72
	Skirting	Sqm	1	23.58		0.15	3.54
	Store Room	Sqm	1	2.07	3.09		6.40
	Skirting	Sqm	1	10.32		0.15	1.55
	Store Room	Sqm	1	2.07	2.40		4.97
	Skirting	Sqm	1	8.94		0.15	1.34
	Old Library	Sqm	1	5.71	5.72		32.66
	Skirting	Sqm	1	22.86		0.15	3.43
	Hall	Sqm	1	5.75	12.60		72.45
	Skirting	Sqm	1	36.70		0.15	5.51
	Block 5						
	Toilet	Sqm	1	2.87	1.54		4.42
	Dadoing	Sqm	2	4.41		1.80	15.88
	Toilet	Sqm	1	1.04	1.07		1.11
	Dadoing	Sqm	2	2.11		1.80	7.60
	Ded						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Ventilator	Sqm	-4	0.60	0.60		-1.44
	Total Qty	Sqm			Total		464.81
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	B1 Block						
	Entry Step Tread	Sqm	2	1.20	0.30		0.72
	Entry Step Riser	Sqm	3	1.20		0.15	0.54
	Ramp	Sqm	1	5.80	1.20		6.96
	Staircase GF-FF -Tread	Sqm	22	1.00	0.30		6.60
	Staircase GF-FF -Riser	Sqm	24	1.00		0.15	3.60
	Landing	Sqm	1	2.28	1.00		2.28
	Skirting	Sqm	1	4.28		0.15	0.64
	B4 Block						
	Entry Step Tread	Sqm	3	2.00	0.30		1.80
	Entry Step Riser	Sqm	4	2.00		0.15	1.20
	Total Qty	Sqm			Total		24.34
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	B1 Block						
	Door-D1	Sqm	6	1.20		2.10	15.00
	Window-W	Sqm	20	1.35		1.35	36.00
	B2 Block						
	Door-D	Sqm	3	0.90		2.00	5.00
	Window-W	Sqm	3	0.90		1.20	3.00
	B3 Block						
	Door-D	Sqm	2	1.20		2.10	5.00
	B4 Block						
	Door-D	Sqm	8	1.00		2.10	17.00
	Door-D1	Sqm	2	0.87		2.10	4.00
	Window-W	Sqm	21	1.50		1.50	47.00
	B5 Block						
	Door-D	Sqm	2	1.00		2.10	4.00
		Sqm			Total		136.00
	Total 80% Quantity	Sqm			Total		108.80
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	B1 Block						
	Door-D1	Sqm	6	1.20		2.10	15.00
	Window-W	Sqm	20	1.35		1.35	36.00
	B2 Block						
	Door-D	Sqm	3	0.90		2.00	5.00
	Window-W	Sqm	3	0.90		1.20	3.00
	B3 Block						
	Door-D	Sqm	2	1.20		2.10	5.00
	B4 Block						
	Door-D	Sqm	8	1.00		2.10	17.00
	Door-D1	Sqm	2	0.87		2.10	4.00
	Window-W	Sqm	21	1.50		1.50	47.00
	B5 Block						
	Door-D	Sqm	2	1.00		2.10	4.00
							136.00
	Total 80% Quantity	Sqm			Total		108.80
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Block 1						
	Class room -FF	Sqm	2	14.20		3.00	85.00
	Staircase Room-GF	Sqm	4	8.51		3.00	102.00
	Library -GF	Sqm	2	18.30		3.00	110.00
	Science Lab	Sqm	2	14.20		3.00	85.00
	Art Craft & Library	Sqm	2	14.20		3.00	85.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Ded						
	Door-D1	Sqm	-6	1.20		2.10	-15.00
	Window-W	Sqm	-20	1.35		1.35	-36.00
	Door Grill	Sqm	-1	2.28		3.00	-7.00
	Opening	Sqm	-1	2.28		3.00	-7.00
	Ceiling						
	GF	Sqm	1	21.00	6.00		126.00
	FF	Sqm	1	19.20	6.00		115.00
	Waist Slab	Sqm	4	3.60	1.00		14.00
	Block 2						
	Kitchen	Sqm	2	10.20		2.88	59.00
	Boys Toilet	Sqm	2	3.65		2.50	18.00
	Girls Toilet	Sqm	2	4.65		2.50	23.25
	Ded						
	Door-D	Sqm	-3	0.90		2.00	-5.00
	Window-W	Sqm	-3	0.90		1.20	-3.00
	Ventilator-V	Sqm	-5	0.60		0.50	-2.00
	Ceiling-Kitchen	Sqm	1	5.70	4.50		26.00
	Block 3						
	Class room	Sqm	4	13.00		3.38	176.00
	Ded						
	Door-D	Sqm	-2	1.20		2.10	-5.00
	Window-W	Sqm	-6	1.50		1.50	-14.00
	Ceiling	Sqm	1	15.11	5.50		83.00
	Block 4						
	Staff Room	Sqm	2	11.78		4.23	100.00
	Class Room	Sqm	2	12.05		4.23	102.00
	Principal's Room	Sqm	2	11.80		4.23	100.00
	Sports Room	Sqm	2	8.63		4.23	73.00
	Computer Lab	Sqm	2	11.79		4.23	100.00
	Store Room	Sqm	2	5.16		4.23	44.00
	Store Room	Sqm	2	4.47		4.23	38.00
	Old Library	Sqm	2	11.43		4.23	97.00
	Hall	Sqm	2	18.35		4.23	155.00
	Ded						
	Door-D	Sqm	-8	1.00		2.10	-17.00
	Door-D1	Sqm	-2	0.86		2.10	-4.00
	Window-W	Sqm	-21	1.50		1.50	-47.00
	Sliding Window-SW	Sqm	-1	1.20		1.50	-2.00
	Ventilator-V	Sqm	-4	1.20		0.57	-3.00
	Block 5						
	Toilet	Sqm	2	4.41		0.40	4.00
	Toilet	Sqm	2	2.11		0.40	2.00
	Ded						
	Door-D	Sqm	-2	1.00		2.10	-4.00
	Ventilator-V	Sqm	-4	0.60		0.60	-1.00
	Ceiling						
	Toilet	Sqm	1	2.87	1.54		4.00
	Toilet	Sqm	1	1.04	1.07		1.00
	Total Quantity	Sqm			Total		1755.25
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	Block 4	Sqm	1				516.20
		Sqm			Total		516.20
	Total 60% Quantity	Sqm					309.72
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	Block 4	Sqm	1				516.20
		Sqm			Total		516.20
	Total 40% Quantity	Sqm					206.48
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	Block 4	Rmt	1	59.60			59.60
		Rmt			Total		59.60
	Total 80% Quantity	Rmt					47.68

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	Block 1						
	Door-D1	Sqm	6	1.20		2.10	15.12
	Window-W	Sqm	20	1.35		1.35	36.45
	Block 2						
	Door-D	Sqm	3	0.90		2.00	5.40
	Window-W	Sqm	3	0.90		1.20	3.24
	Block 3						
	Door-D	Sqm	2	1.20		2.10	5.04
	Block 4						
	Door-D	Sqm	8	1.00		2.10	16.80
	Door-D1	Sqm	2	0.86		2.10	3.61
	Window-W	Sqm	21	1.50		1.50	47.25
	Block 5						
	Door-D	Sqm	2	1.00		2.10	4.20
		Sqm				Total	137.11
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Block 1						
	Door-D1	Sqm	6	1.20		2.10	15.12
	Window-W	Sqm	20	1.35		1.35	36.45
	Block 2						
	Door-D	Sqm	3	0.90		2.00	5.40
	Window-W	Sqm	3	0.90		1.20	3.24
	Block 3						
	Door-D	Sqm	2	1.20		2.10	5.04
	Block 4						
	Door-D	Sqm	0	0.00		0.00	0.00
	Door-D	Sqm	8	1.00		2.10	16.80
	Door-D1	Sqm	2	0.86		2.10	3.61
	Window-W	Sqm	21	1.50		1.50	47.25
	Block 5						
	Door-D	Sqm	2	1.00		2.10	4.20
		Sqm				Total	137.11
34	Providing and laying non - asbestos high impact polypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, rafters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51						
	Toilet	Sqm	1.00	2.20	6.4		14.08
		Sqm			Total		14.08

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
35	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	B1 Block	Sqm	1	60.32		0.45	27.14
	Rcc Slab	Sqm	1	19.85	8.50		168.73
	B2 Block	Sqm	1	39.64		0.45	17.84
	Rcc Slab	Sqm	1	6.36	5.16		32.82
	B3 Block	Sqm	1	43.06		0.45	19.38
	Rcc Slab	Sqm	1	15.75	7.86		123.80
	B4 Block	Sqm	1	112.26		0.45	50.52
	B5 Block	Sqm	1	19.75		0.45	8.89
	Rcc Slab	Sqm	1	10.00	Area		10.00
		Sqm			Total		459.12
36	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Total Area	Rmt	1.00	155.00			155.00
	Total Qty	Rmt			Total		155.00
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Near Toilet Area	Sqm	1.00	14.00	4.64		65.00
	Near to Flag pole	Sqm	1.00	24.00	1.50		36.00
	Flag Pole Front side	Sqm	1.00	12.50	8.00		100.00
	Front of Library Building	Sqm	1.00	12.00	6.00		72.00
	Entrance Side	Sqm	1.00	32.67	1.50		49.00
	Entrance Side	Sqm	1.00	9.00	1.00		9.00
	Total Qty	Sqm					331.00
	Total Qty 20%	Sqm			Total		66.20
38	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)						
	Right & Back Side of Compound wall	Sqm	1.00	60.00	1.00		60.00
	Left & Front side of compound wall	Sqm	1.00	45.00	1.00		45.00
	Left school side	Sqm	1.00	29.33	3.00		88.00
							193.00
	Total Qty 100%	Sqm			Total		193.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,Sl.No.14.45.1)						
	Total Qty- SI No.37	Sqm	1.00	331.00	Area		331.00
	Total 80% Qty	Sqm			Total		264.80
40	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.40	0.06
	Total Qty	Rmt	1.00	41.00			41.00
	Total Qty	No			Total		91.00
41	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)						
	Entrance Area	Sqm	3.00	20.00	0.15		9.00
	Total Qty	Sqm			Total		9.00

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - GHS HoigeBazar

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm ² for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M ³) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14			
	Basic Rate		725.00	
	Sub Total		725	
	add 10% For Area weightage		72.50	
	Total	Rate	797.50	Sqm
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
15	Providing and removing, centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm

16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
18	KSRRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRRB 18-19,Pg No.77,SI No.11.56.2			
	do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
21	KSRRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm

22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm

28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate		90.00	
	Sub Total		90	
	Add 10% For Area weightage for Labour		9.00	
	Total	Rate	99.00	Sqm
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267			
	Basic Rate		407.00	
	Sub Total		407	
	Add 10% For Area weightage		40.70	
	Total Rate	Rate	447.70	Sqm
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11			
	Basic Rate		814.00	
	Sub Total		814	
	Add 10% For Area weightage		81.40	
	Total Rate	Rate	895.40	Sqm
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267			
	Baisc rate		101.00	
	Sub Total		101	
	Add 10% For area weightage (Mangalore City)		10.10	
	Total Rate	Rate	111.10	Rmt
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123			
	Basic Rate		56.00	
	Sub Total		56	
	Add 10% For Area weightage		5.60	
	Total Rate	Rate	61.60	Sqm
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123			
	Basic Rate		50.00	
	Sub Total		50	
	Add 10% For Area weightage		5.00	
	Total Rate	Rate	55.00	Sqm

34	Providing and laying non - asbestos high impact polypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, rafters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51			
	Basic Rate		590.00	
	Sub Total		590.00	
	Add 10% For Area weightage		59.00	
	Total Rate	Rate	649.00	Sqm
35	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
36	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and coarse sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm
38	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)			
	Basic Rate		2067.00	
	Sub Total		2067.00	
	Total Rate	Rate	2067.00	Sqm

39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
40	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)			
	Basic Rate		468.00	
	Sub Total		468.00	
	Add 10% For Area weightage		46.80	
	Total Rate	Rate	514.80	Nos
41	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)			
	Basic Rate		429.00	
	Sub Total		429.00	
	Add 10% For Area weightage		42.90	
	Total Rate	Rate	471.90	Sqm

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.1 Grand Summary of E-Smart school - LPS HoigeBazar

Sr. No.	Description	Cost In INR
1	E-Smart School - LPS Hoigebazar	
a	Building & Compound wall works	3,746,046
b	Electrical Works	352,464
c	Plumbing Works	235,380
d	External Development - Softscape & Hardscape	603,874
	Total Cost	4,937,764

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.2 BOQ of E-Smart School - LPS HOIGEBAZAR

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.09	28330.50	2,660
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	647.55	5.50	3,562
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	33.17	3730.10	123,727
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	288.20	300.30	86,546
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	1308.34	112.20	146,796
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	165.74	374.00	61,987
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	750.00	0.77	578
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	10000.00	0.39	3,850

Sr .No.	Description	Unit	Quantity	Rate	Amount
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	23.00	67.10	1,543
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	216.74	328.90	71,286
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	18.45	6490.00	119,741
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	54.88	6817.80	374,161
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	4.12	77860.20	320,473
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	200.55	289.30	58,019
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	467.38	397.10	185,597
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Rmt	20.00	161.70	3,234

Sr .No.	Description	Unit	Quantity	Rate	Amount
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	123.26	132.00	16,270
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	30.00	666.60	19,998
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EO)	Each	10.00	893.00	8,930
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	283.89	304.70	86,500
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	218.80	1452.00	317,698
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	27.67	5280.00	146,098
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	286.32	1332.10	381,407
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	39.69	7914.50	314,127
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	78.40	753.50	59,074

Sr .No.	Description	Unit	Quantity	Rate	Amount
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	78.40	753.50	59,074
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	739.88	99.00	73,248
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	326.23	447.70	146,054
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	217.49	895.40	194,739
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	47.20	111.10	5,244
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	103.01	61.60	6,345
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	103.01	55.00	5,666
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	92.28	578.60	53,393

Sr .No.	Description	Unit	Quantity	Rate	Amount
34	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall conform to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, Sl.No. 7.29 of PWD SR 2018-19)	Kg	1875.00	122.10	228,938
35	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.48, Sl.No. 8.29 of PWD SR 2016-17)	Sqm	75.00	793.10	59,483
B	External Development - Softscape & Hardscape				
36	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to match shade of tiles, including providing spacers at required interval and removing stains, including cost of all materials, mortar, labour, etc., Complete as per specification. (KPWD 18-19, Sl.No.14.45.1)	Sqm	174.00	1446.50	251,691
37	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19, Sl No.19.86, Pg No 149	Rmt	170.00	50.60	8,602
38	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour, using cement and coarse sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	90.00	912.00	82,080
39	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)	Sqm	65.00	2067.00	134,355
40	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications. specification. No. KBS : (KSRB 18-19, Pg No.7, Sl No.2.16)	Sqm	155.00	9.90	1,535

Sr .No.	Description	Unit	Quantity	Rate	Amount
41	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	244.00	514.80	125,611
GRAND TOTAL					4,349,920

GST @12% on SOR & Non SOR 4,267,840 512141
GST @18% on Market 0 0

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - LPS Hoigebazar

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	1447.00	Area		1447.00
	Ded	Sqm	-1	508.00	Area		-508.00
		Sqm					939.00
		Ha					0.094
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	8.40		2.00	33.60
	Right side	Sqm	2	63.80		1.30	165.88
	Left side	Sqm	2	63.50		2.30	292.10
	Back side	Sqm	2	26.30		2.30	120.98
	Pillar	Sqm	2	3.20		2.00	12.80
	Stage	Sqm	2	15.20		0.73	22.19
		Sqm			Total		647.55
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	3.36	0.23	2.00	1.55
	Right side	Cum	1	25.52	0.23	1.30	7.63
	Left side	Cum	1	25.40	0.23	2.30	13.44
	Back side	Cum	1	10.52	0.23	2.30	5.57
	Pillar	Cum	2	1.28	0.23	2.00	1.18
	Sitting Arrangement	Cum	11	1.50	0.23	1.00	3.80
	Total Quantity	Cum			Total		33.17
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	3.36		2.00	13.44
	Right side	Sqm	2	25.52		1.30	66.35
	Left side	Sqm	2	25.40		2.30	116.84
	Back side	Sqm	2	10.52		2.30	48.39
	Pillar	Sqm	2	1.28		2.00	5.12
	Sitting Arrangement	Sqm	11	3.46		1.00	38.06
	Total Quantity	Sqm			Total		288.20
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	8.40		2.00	33.60
	Right side	Sqm	2	63.80		1.30	165.88
	Left side	Sqm	2	63.50		2.30	292.10
	Back side	Sqm	2	26.30		2.30	120.98
	Pillar	Sqm	2	3.20		2.00	12.80
	Sitting Arrangement	Sqm	11	3.46		1.00	38.06
	B1 Block						
	Outside Building	Sqm	1	105.00		4.70	493.50
	Deduction						
	Door-D	Sqm	-6	1.20		2.10	-15.12
	Door-D1	Sqm	-1	1.00		2.10	-2.10
	Window-W	Sqm	-28	1.00		1.50	-42.00
	Ramp Side	Sqm	1	2.65		0.30	0.80
	Column	Sqm	10	1.00		2.00	20.00
	Chejja	Sqm	34	1.50	0.75		38.25

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Block 2						
	Outside wall	Sqm	1	20.12		3.00	60.36
	Ded						
	Door-D	Sqm	-1	0.90		2.10	-1.89
	Door-D1	Sqm	-1	1.25		2.10	-2.63
	Ventilator-V	Sqm	-2	0.25		0.25	-0.13
	Ramp Side	Sqm	2	1.50		0.15	0.45
	Block 3						
	Outside Wall	Sqm	1	22.00		3.50	77.00
	Ded						
	Door - D	Sqm	-2	0.80		1.90	-3.04
	Ventilator-V	Sqm	-2	0.60		0.60	-0.72
	Stage	Sqm	1	30.40		0.73	22.19
		Sqm				Total	1308.34
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	8.40		2.00	16.80
	Right side	Sqm	1	63.80		1.30	82.94
	B1 Block	Sqm	1	55.00		1.20	66.00
	Total Qty	Sqm				Total	165.74
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	15	50.00			750.00
		Cm				Total	750.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	10000				10000.00
		Ltr				Total	10000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	1.50		2.00	3.00
	Ramp Hand Rail	Sqm	2	2.70		0.75	4.05
	Ramp Hand Rail	Sqm	2	1.45		1.00	2.90
	MS Door	Sqm	2	1.25		2.10	5.25
	MS Vertiacl Pipe support	Sqm	13	0.20		3.00	7.80
	Total Qty	Sqm				Total	23.00
10	KSRRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	B1 Block	Cum	1	105.00	0.30	0.45	14.18
	B2 Block	Cum	1	20.12	0.30	0.45	2.72
	B3 Block	Cum	1	22.00	0.30	0.45	2.97
	RCC Covered Drain						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	SWD - 0.45m Clear Width	Cum	1	189.09	0.95	1.01	181.43
	SWD Chamber	Cum	10	0.70	0.70	0.50	2.45
	UPVC Pipe	Cum	1	30.00	0.75	0.58	12.99
		Cum			Total		216.74
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD - 0.45m Clear Width	Cum	1	189.09	0.95	0.10	17.96
	SWD Chamber	Cum	10	0.70	0.70	0.10	0.49
					Total		18.45
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD - 0.45m Clear Width	Cum	1	189.09	0.65	0.15	18.44
	SWD Chamber	Cum	10	0.50	0.50	0.10	0.25
	Side wall						
	SWD - 0.45m Clear Width	Cum	2	189.09	0.10	0.61	23.07
	SWD Chamber	Cum	10	1.20	0.10	0.30	0.36
	Covered Slab						
	SWD - 0.45m Clear Width	Cum	1	189.09	0.45	0.15	12.76
		Cum					54.88
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	18.69	75		1401.75
	Side wall	Kg	1	23.43	75		1757.25
	Covered Slab	Kg	1	12.76	75		957.00
		Kg					4116.00
		MT					4.12
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD - 0.45m Clear Width	Sqm	2	189.09		0.15	56.73
	SWD Chamber	Sqm	10	2.00		0.10	2.00
	RCC Covered Drain						
	Slab Bottom						
	SWD - 0.45m Clear Width	Sqm	1	189.09	0.45		85.09
	Slab side						
	SWD - 0.45m Clear Width	Sqm	2	189.09		0.15	56.73
		Sqm					200.55

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD - 0.45m Clear Width	Sqm	4	189.09		0.61	461.38
	SWD Chamber	Sqm	10	2.00		0.30	6.00
		Sqm					467.38
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	20.00				20.00
		Nos					20.00
17	KSRRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				196.87
	PCC Qty	Cum	-1				-18.45
	RCC Qty	Cum	-1				-54.88
	UPVC Pipe 110mm Dia	Cum	-1	30.00	0.01		-0.28
		Cum					123.26
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	30.00			30.00
		Rmt					30.00
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	10.00				10.00
		Each					10.00
20	KSRRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	B1 Block						
	Outside wall	Sqm	1	105.00		4.70	493.50
	B2 Block						
	Outside wall	Sqm	1	20.12		3.00	60.36
	Block 3						
	Outside wall	Sqm	1	22.00		3.50	77.00
		Sqm				Total	630.86
	Total 45% Quantity	Sqm				Total	283.89

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	B1 Block						
	Anganavadi	Sqm	1	2.30	4.80		11.04
	Skirting	Sqm	1	14.20		0.15	2.13
	Class Room	Sqm	1	5.60	4.80		26.88
	Skirting	Sqm	1	20.80		0.15	3.12
	Class Room	Sqm	1	4.85	7.63		37.01
	Skirting	Sqm	1	24.96		0.15	3.74
	Class Room	Sqm	1	9.10	4.86		44.23
	Skirting	Sqm	1	27.92		0.15	4.19
	Passage	Sqm	1	16.00	1.90		30.40
	Skirting	Sqm	1	16.00		0.15	2.40
	Passage	Sqm	1	24.50	2.04		49.98
	Skirting	Sqm	1	24.50		0.15	3.68
	Total Qty	Sqm			Total		218.80
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	B1 Block						
	Principal's Room	Sqm	1	4.85	5.09		24.69
	Skirting	Sqm	1	19.88		0.15	2.98
	Total Qty	Sqm			Total		27.67
23	KS RB 14.14-5: Providing Ceramic tiles of approved make, shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment, including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19, SI No.14.36.2, Pg No.107 and 108						
	B1 Block						
	Library	Sqm	1	12.23	4.80		58.70
	Skirting	Sqm	1	34.06		0.15	5.11
	Store	Sqm	1	3.30	4.80		15.84
	Skirting	Sqm	1	16.20		0.15	2.43
	B2 Block						
	Toilet	Sqm	1	3.66	3.50		12.81
	Dadoing	Sqm	1	14.32		2.10	30.07
	Toilet	Sqm	1	1.75	3.50		6.13
	Dadoing	Sqm	1	10.50		2.10	22.05
	Ded						
	Door-D	Sqm	-1	0.90		2.10	-1.89
	Door-D1	Sqm	-1	1.25		2.10	-2.63
	Ventilator-V	Sqm	-2	0.25		0.25	-0.13
	Block 2						
	Toilet	Sqm	2	4.54	2.66		24.11
	Dadoing	Sqm	4	7.20		2.10	60.44
	Ded						
	Door-D	Sqm	-2	0.80		1.90	-3.04
	Stage	Sqm	1	8.80	6.40		56.32
	Total Qty	Sqm			Total		286.32
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	B1 Block						
	Entry Step Tread	Sqm	1	3.45	0.30		1.04
	Entry Step Tread	Sqm	1	2.95	0.30		0.89
	Entry Step Tread	Sqm	1	2.50	0.30		0.75
	Entry Step Tread	Sqm	1	1.20	Area		1.20
	Riser	Sqm	1	3.45		0.15	0.52

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Riser	Sqm	1	2.95		0.15	0.44
	Riser	Sqm	1	2.50		0.15	0.38
	Riser	Sqm	1	1.20		0.15	0.18
	Riser	Sqm	1	2.70		0.15	0.41
	Sitting	Sqm	11	1.65	0.23		4.17
	Ramp	Sqm	1	2.02	2.70		5.44
	Entry Step Tread	Sqm	3	1.65	0.30		1.49
	Entry Step Tread	Sqm	3	3.50	0.30		3.15
	Entry Step Tread	Sqm	3	4.45	0.30		4.01
	Entry Step Riser	Sqm	3	1.65		0.15	0.74
	Entry Step Riser	Sqm	3	3.50		0.15	1.58
	Entry Step Riser	Sqm	3	4.45		0.15	2.00
	Entry Step Riser	Sqm	3	1.69		0.15	0.76
	Entry Step Tread	Sqm	8	1.25	0.30		3.00
	Entry Step Riser	Sqm	10	1.25		0.15	1.88
	Entry Step Tread	Sqm	3	0.95	0.30		0.86
	Entry Step Riser	Sqm	4	0.95		0.15	0.57
	Ramp	Sqm	1	1.45	1.50		2.18
	Entry Step Tread	Sqm	2	1.00	0.30		0.60
	Entry Step Riser	Sqm	3	1.00		0.15	0.45
	Stage Step Tread	Sqm	2	0.95	0.30		0.57
	Stage Step Riser	Sqm	3	0.95		0.15	0.43
	Total Qty	Sqm			Total		39.69
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	B1 Block						
	Door-D	Sqm	10	1.40		2.50	35.00
	Door-D1	Sqm	2	1.07		2.00	4.00
	Window-W	Sqm	30	1.20		1.50	54.00
	Block 2						
	Door-D	Sqm	1	0.90		2.10	2.00
	Block 3						
	Door-D	Sqm	2	0.80		1.90	3.00
		Sqm			Total		98.00
	Total 80% Quantity	Sqm			Total		78.40
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	B1 Block						
	Door-D	Sqm	10	1.40		2.50	35.00
	Door-D1	Sqm	2	1.07		2.00	4.00
	Window-W	Sqm	30	1.20		1.50	54.00
	Block 2						
	Door-D	Sqm	1	0.90		2.10	2.00
	Block 3						
	Door-D	Sqm	2	0.80		1.90	3.00
		Sqm			Total		98.00
	Total 80% Quantity	Sqm			Total		78.40
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Block 1						
	Anganavadi	Sqm	2	7.10		4.20	60.00
	Class Room	Sqm	2	10.40		4.20	87.00
	Class Room	Sqm	2	12.48		4.20	105.00
	Class Room	Sqm	2	13.96		4.20	117.00
	Principal's Room	Sqm	2	9.94		4.20	83.00
	Library	Sqm	2	17.03		4.20	143.00
	Store	Sqm	2	8.10		4.20	68.00
	Ded						
	Door-D	Sqm	-10	1.40		2.50	-35.00
	Door-D1	Sqm	-2	1.07		2.00	-4.00
	Window-W	Sqm	-30	1.20		1.50	-54.00
	Block 2						
	Toilet	Sqm	2	7.16		2.70	39.00
	Toilet	Sqm	2	5.25		2.50	26.00
	Ded						
	Door-D	Sqm	-1	0.90		2.10	-2.00
	Door-D1	Sqm	-1	1.25		2.10	-3.00
	Ventilator-V	Sqm	-2	0.25		0.25	-0.13

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Ceiling	Sqm	1	3.66	3.50		13.00
	Ceiling	Sqm	1	1.75	3.50		6.00
	Block 3						
	Toilet	Sqm	4	7.20		3.25	94.00
	Ded						
	Door-D	Sqm	-2	0.80		1.90	-3.00
	Total Quantity	Sqm			Total		739.88
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	Block 1	Sqm	1				501.72
	Block 3	Sqm	1				42.00
		Sqm			Total		543.72
	Total 60% Quantity	Sqm					326.23
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	Block 1	Sqm	1				501.72
	Block 3	Sqm	1				42.00
		Sqm			Total		543.72
	Total 40% Quantity	Sqm					217.49
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	Block 1	Rmt	1	53.00			53.00
	Block 2	Rmt	1	6.00			6.00
		Rmt			Total		59.00
	Total 80% Quantity	Rmt					47.20
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	Block 1						
	Door-D	Sqm	10	1.40		2.50	35.00
	Door-D1	Sqm	2	1.07		2.00	4.28
	Window-W	Sqm	30	1.20		1.50	54.00
	Wooden Column	Sqm	6	0.40		2.00	4.80
	Block 2						
	Door-D	Sqm	1	0.90		2.10	1.89
	Block 3						
	Door-D	Sqm	2	0.80		1.90	3.04
		Sqm			Total		103.01
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Block 1						
	Door-D	Sqm	10	1.40		2.5	35.00
	Door-D1	Sqm	2	1.07		2.00	4.28
	Window-W	Sqm	30	1.20		1.50	54.00
	Wooden Column	Sqm	6	0.40		2.00	4.80
	Block 2						
	Door-D	Sqm	1	0.90		2.10	1.89
	Block 3						
	Door-D	Sqm	2	0.80		1.90	3.04
		Sqm			Total		103.01

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	B1 Block	Sqm	1	105.00		0.45	47.25
	B2 Block	Sqm	1	20.12		0.45	9.05
	RCC Slab	Sqm	1	4.35	4.00		17.40
		Sqm	1	2.17	4.00		8.68
	B3 Block	Sqm	1	22.00		0.45	9.90
		Sqm			Total		92.28
34	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall conform to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)					Kg/Sqm	
	Stage	Kg	1	10.00	7.50	25	1875.00
		Kg					1875.00
35	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kg/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.48, SI.No. 8.29 of PWD SR 2016-17)						
	Stage	Sqm	1	10.00	7.50		75.00
		Sqm					75.00
36	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to match shade of tiles, including providing spacers at required interval and removing stains, including cost of all materials, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Entrance area	Sqm	1.00	38.00	1.92		73.00
	Front side Area	Sqm	1.00	90.00	1.12		101.00
	Total Qty	Sqm					174.00
37	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	All Building side	Rmt	1.00	170.00			170.00
	Total Qty	Rmt			Total		170.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
38	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Surrounding Building	Sqm	1.00	90.00	1.00		90.00
	Total Qty	Sqm			Total		90.00
39	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)						
	Building Surrounding	Sqm	1.00	65.00	1.00		65.00
		Sqm			Total		65.00
40	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)						
	Front side	Sqm	1.00	23.85	6.5		155.00
	Total Qty	Sqm			Total		155.00
41	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.4	0.06
	Total Qty	Rmt	1.00	110.00			110.00
	Total Qty	No			Total		244.00

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL

RATE ANALYSIS - LPS HoigeBazar

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)		
	Basic rate		25755
	Sub Total		25755
	Add 10% For area weightage		2575.50
	Total	Rate	28330.50 Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)		
	Basic rate		5.00
	Sub Total		5.00
	Add 10% For area weightage		0.50
	Total	Rate	5.50 Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)		
	Basic rate		3391
	Sub Total		3391
	Add 10% For area weightage		339.10
	Total	Rate	3730.10 Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116		
	Basic rate		273
	Sub Total		273
	Add 10% For area weightage		27.30
	Total	Rate	300.30 Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer		
	Basic Rate		102.00
	Sub Total		102
	Add 10% For Area weightage		10.20
	Total	Rate	112.20 Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm

16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Rmt
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2			
	do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm

22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate		90.00	
	Sub Total		90	
	Add 10% For Area weightage for Labour		9.00	
	Total	Rate	99.00	Sqm

28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267		
	Basic Rate		407.00
	Sub Total		407
	Add 10% For Area weightage		40.70
	Total Rate	Rate	447.70 Sqm
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11		
	Basic Rate		814.00
	Sub Total		814
	Add 10% For Area weightage		81.40
	Total Rate	Rate	895.40 Sqm
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267		
	Baisc rate		101.00
	Sub Total		101
	Add 10% For area weightage (Mangalore City)		10.10
	Total Rate	Rate	111.10 Rmt
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123		
	Basic Rate		56.00
	Sub Total		56
	Add 10% For Area weightage		5.60
	Total Rate	Rate	61.60 Sqm
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123		
	Basic Rate		50.00
	Sub Total		50
	Add 10% For Area weightage		5.00
	Total Rate	Rate	55.00 Sqm
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69		
	Basic Rate		526.00
	Sub Total		526.00
	Add 10% For Area weightage		52.60
	Total Rate	Rate	578.60 Sqm

34	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall conform to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all the members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)			
	Basic Rate		111.00	
	Sub Total		111.00	
	Add 10% For Area weightage		11.10	
	Total Rate	Rate	122.10	Kg
35	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cost of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.48, SI.No. 8.29 of PWD SR 2016-17)			
	Basic Rate		721.00	
	Sub Total		721.00	
	Add 10% For Area weightage		72.10	
	Total Rate	Rate	793.10	Sqm
36	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to match shade of tiles, including providing spacers at required interval and removing stains, including cost of all materials, mortar, labour, etc., Complete as per specification. (KPWD 18-19, SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
37	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19, SI No.19.86, Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
38	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour, using cement and coarse sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm

39	Providing and laying artline grass pavers or equivalent block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)			
	Basic Rate		2067.00	
	Sub Total		2067.00	
	Total Rate	Rate	2067.00	Sqm
40	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications. specification. No. KBS : (KSRB 18-19, Pg No.7, SI No.2.16)			
	Basic Rate		9.00	
	Sub Total		9.00	
	Add 10% For Area weightage		0.90	
	Total Rate	Rate	9.90	Sqm
41	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRB 18-19, Pg No.27, SI No.5.29.1)			
	Basic Rate		468.00	
	Sub Total		468.00	
	Add 10% For Area weightage		46.80	
	Total Rate	Rate	514.80	Nos

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY

1.1 Grand Summary of E-Smart school - Neereshwalaya

Sr. No.	Description	Cost In INR
1	E-Smart School - Neereshwalaya	
a	Building & Compound wall works	2,275,822
b	Electrical Works	184,770
c	Plumbing Works	119,997
d	External Development - Softscape & Hardscape	345,168
	Total Cost	2,925,757

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MANGALURU SMART CITY
1.2 BOQ of E-Smart School - NEERESHWALYA

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.04	28330.50	1,040
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	768.80	5.50	4,228
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	35.84	3730.10	133,687
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering. : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	369.93	300.30	111,090
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	1392.20	112.20	156,205
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	119.20	374.00	44,581
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	500.00	0.77	385
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	8000.00	0.39	3,080
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	11.16	67.10	749

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	89.29	328.90	29,367
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	7.20	6490.00	46,728
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	18.98	6817.80	129,402
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	1.42	77860.20	110,834
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	79.23	289.30	22,921
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	168.01	397.10	66,717
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	12.00	161.70	1,940
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	42.85	132.00	5,656

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	18.00	666.60	11,999
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)	Each	6.00	893.00	5,358
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	456.67	304.70	139,146
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	144.30	1452.00	209,524
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	14.04	5280.00	74,131
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	241.25	1332.10	321,369
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	17.08	7914.50	135,180
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	46.20	753.50	34,812
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	46.20	753.50	34,812
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	728.49	99.00	72,120
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	262.18	447.70	117,376

Sr .No.	Description	Unit	Quantity	Rate	Amount
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	174.78	895.40	156,502
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	35.36	111.10	3,928
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	67.31	61.60	4,146
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	67.31	55.00	3,702
33	Providing and laying non - asbestos high impact ploypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, refters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51	Sqm	46.63	649.00	30,263
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	91.33	578.60	52,844
B	External Development - Softscape & Hardscape				
35	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	143.00	1446.50	206,850
36	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowring plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	30.00	50.60	1,518

Sr .No.	Description	Unit	Quantity	Rate	Amount
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	150.00	912.00	136,800
GRAND TOTAL					2,620,990

GST @12% on SOR & Non SOR	2,478,832	297460
GST @18% on Market	0	0

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MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - NEERESHWALYA

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	700.00	Area		700.00
	Ded	Sqm	-1	333.00	Area		-333.00
		Sqm					367.00
		Ha					0.037
2	KS RB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	30.50		2.00	122.00
	Right side	Sqm	2	27.00		1.60	86.40
	Left side	Sqm	2	92.00		2.00	368.00
	Back side	Sqm	2	35.00		2.60	182.00
	Pillar	Sqm	2	2.60		2.00	10.40
		Sqm			Total		768.80
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	12.20	0.23	2.00	5.61
	Right side	Cum	1	10.80	0.23	1.60	3.97
	Left side	Cum	1	36.80	0.23	2.00	16.93
	Back side	Cum	1	14.00	0.23	2.60	8.37
	Pillar	Cum	2	1.04	0.23	2.00	0.96
	Total Quantity	Cum			Total		35.84
4	KS RB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	12.20		2.00	48.80
	Right side	Sqm	2	10.80		1.60	34.56
	Left side	Sqm	2	36.80		2.00	147.20
	Back side	Sqm	2	14.00		2.60	72.80
	Pillar	Sqm	2	1.04		2.00	4.16
	Hand wash room	Sqm	4	7.02		2.50	70.20
	Ded						
	Door	Sqm	-1	1.09		2.50	-2.73
	Window	Sqm	-3	1.25		1.35	-5.06
	Total Quantity	Sqm			Total		369.93
5	KS RB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	30.50		2.00	122.00
	Right side	Sqm	2	27.00		1.60	86.40
	Left side	Sqm	2	92.00		2.00	368.00
	Back side	Sqm	2	35.00		2.60	182.00
	Pillar	Sqm	2	2.60		2.00	10.40
	Block 2 & 3						
	Outside Building	Sqm	1	26.40		2.90	76.56
	Deduction						
	Door-D	Sqm	-1	1.10		2.10	-2.31
	Door-D1	Sqm	-1	1.20		1.65	-1.98
	Window-W	Sqm	-1	0.90		1.20	-1.08
	Ventilator-V	Sqm	-1	0.60		0.60	-0.36

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Opening	Sqm	-1	1.09		2.50	-2.73
		Sqm	-3	1.25		1.35	-5.06
	Ramp	Sqm	2	2.90		0.23	1.31
	Block 4						
	Outside Building	Sqm	1	76.00		5.43	412.30
	Ded						
	Door D2	Sqm	-1	1.10		2.05	-2.26
	Door D3	Sqm	-2	1.06		2.10	-4.45
	Window-W	Sqm	-10	1.19		1.47	-17.49
	Window-W1	Sqm	-1	1.07		1.34	-1.43
	Window-W2	Sqm	-2	0.84		1.62	-2.72
	Window-W3	Sqm	-2	2.98		1.62	-9.66
	Window-W4	Sqm	-2	1.04		1.35	-2.81
	Staff Toilet	Sqm	1	4.65		2.40	11.16
	Ded						
	Door-D4	Sqm	-1	0.75		1.75	-1.31
	Ventilator-V	Sqm	-1	0.37		0.35	-0.13
	Outside	Sqm	2	0.89		0.45	0.80
	Ramp	Sqm	2	1.60		0.23	0.72
	RCC Column -C1	Sqm	2	1.44		4.00	11.52
	Block 5						
	Outside Building	Sqm	2	13.41		4.05	108.49
	Ded						
	Door-D	Sqm	-1	0.90		2.10	-1.89
	Window-W	Sqm	-3	0.96		1.20	-3.46
	RCC Column-C	Sqm	3	1.40		2.64	11.09
	Block 6						
	Outside Building	Sqm	2	9.80		2.75	53.90
	Ded						
	Door-D	Sqm	-2	0.75		1.98	-2.97
	Ventilator-V	Sqm	-4	0.26		0.34	-0.35
		Sqm			Total		1392.20
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	30.50		2.00	61.00
	B4 Block	Sqm	1	37.00		1.20	44.40
	B5 Block	Sqm	1	11.50		1.20	13.80
		Sqm			Total		119.20
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	10	50.00			500.00
		Cm			Total		500.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, alga etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty-	L	8000				8000.00
		L			Total		8000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	3.60		2.00	7.20

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Door-D1	Sqm	2	1.20		1.65	3.96
		Sqm			Total		11.16
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	Block 2 & 3	Cum	1	26.40	0.30	0.45	3.56
	Block 4	Cum	1	76.00	0.30	0.45	10.26
	Block 5	Cum	1	26.82	0.30	0.45	3.62
	Block 6	Cum	1	19.60	0.30	0.45	2.65
	RCC Covered Drain						
	SWD-0.3m Clear Width	Cum	1	86.42	0.80	0.87	60.39
	SWD Chamber	Cum	6	0.70	0.70	0.50	1.47
	UPVC Pipe	Cum	1	18.00	0.75	0.54	7.34
		Cum			Total		89.29
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD-0.3m Clear Width	Cum	1	86.42	0.80	0.10	6.91
	SWD Chamber	Cum	6	0.70	0.70	0.10	0.29
					Total		7.20
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD-0.3m Clear Width	Cum	1	86.42	0.50	0.15	6.48
	SWD Chamber	Cum	6	0.70	0.50	0.10	0.21
	Side wall						
	SWD-0.3m Clear Width	Cum	2	86.42	0.10	0.474	8.18
	SWD Chamber	Cum	6	1.20	0.10	0.30	0.22
	Covered Slab						
	SWD-0.3m Clear Width	Cum	1	86.42	0.30	0.15	3.89
		Cum					18.98
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	6.69	75		501.75
	Side wall	Kg	1	8.40	75		630.00
	Covered Slab	Kg	1	3.89	75		291.75
		Kg					1423.50
		MT					1.42

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
14	Providing and removing, centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19, SI No.4.28, Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD-0.3m Clear Width	Sqm	2	86.42		0.15	25.93
	SWD Chamber	Sqm	6	2.40		0.10	1.44
	RCC Covered Drain						
	Slab Bottom						
	SWD-0.3m Clear Width	Sqm	1	86.42	0.30		25.93
	Slab side						
	SWD-0.3m Clear Width	Sqm	2	86.42		0.15	25.93
		Sqm					79.23
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19, SI No.4.31, Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD-0.3m Clear Width	Sqm	4	86.42		0.474	163.69
	SWD Chamber	Sqm	6	2.40		0.30	4.32
		Sqm					168.01
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19, SI No.28.10, Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	12.00				12.00
		Nos					12.00
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19, SI No.2.11, Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				69.20
	PCC Qty	Cum	-1				-7.20
	RCC Qty	Cum	-1				-18.98
	UPVC Pipe 110mm Dia	Cum	-1	18.00	0.01		-0.17
		Cum					42.85
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19, Pg No.77, SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	18.00			18.00
		Rmt					18.00
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc, complete (As Per EOI)						
	SWD Chamber	Each	6.00				6.00
		Each					6.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	Block 2 & 3						
	Outside wall	Sqm	1	26.40		2.90	76.56
	Block 4						
	Outside wall	Sqm	1	76.00		5.43	412.30
	Ramp	Sqm	2	1.60		0.23	0.72
	Projection	Sqm	1	0.90		0.45	0.41
	Block 5						
	Outside wall	Sqm	1	26.82		4.05	108.49
	Block 6						
	Outside wall	Sqm	1	19.60		2.75	53.90
		Sqm			Total		652.38
	Total 70% Quantity	Sqm			Total		456.67
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	Block 2 & 3						
	Abondened Room	Sqm	1	2.45	3.86		9.46
	Skirting	Sqm	1	12.62		0.15	1.89
	Block 4						
	Corridor	Sqm	1	11.20	1.90		21.28
	Skirting	Sqm	1	11.20		0.15	1.68
	Corridor	Sqm	1	1.80	0.68		1.22
	Skirting	Sqm	1	1.80		0.15	0.27
	Class Room	Sqm	1	4.40	2.72		11.97
	Skirting	Sqm	1	14.24		0.15	2.14
	Class Room	Sqm	1	4.58	10.86		49.74
	Skirting	Sqm	1	30.88		0.15	4.63
	Block 5						
	Corridor	Sqm	1	6.50	1.38		8.97
	Skirting	Sqm	1	6.50		0.15	0.98
	Anganavadi	Sqm	1	6.01	4.48		26.92
	Skirting	Sqm	1	20.98		0.15	3.15
	Total Qty	Sqm			Total		144.30
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	Block 4						
	Head Miss Chamber	Sqm	1	4.38	2.72		11.91
		Sqm	1	14.20		0.15	2.13
	Total Qty	Sqm			Total		14.04
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108						
	Block 2 & 3						
	Hand wash room area	Sqm	1	3.06	3.03		9.27
	Skirting	Sqm	1	12.18		0.15	1.83
		Sqm	2	2.50		0.45	2.25
	Dadoing	Sqm	2	6.09		0.80	9.74
	Ded						
	Door Opening	Sqm	-1	1.09		0.80	-0.87
	Window Opening	Sqm	-3	1.25		0.80	-3.00
	Special Toilet	Sqm	1	1.50	2.49		3.74
	Dadoing	Sqm	2	3.99		1.90	15.16
	Ded						
	Door-D1	Sqm	-1	1.20		1.65	-1.98

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Ventilator	Sqm	-1	0.60		0.60	-0.36
	Kitchen	Sqm	1	3.64	3.08		11.21
	Skirting	Sqm	1	13.44		0.15	2.02
	Block 4						
	Entrance Hall	Sqm	1	8.99	2.72		24.45
	Skirting	Sqm	1	23.42		0.15	3.51
	Hall	Sqm	1	15.12	4.27		64.56
	Skirting	Sqm	1	34.51		0.15	5.18
	Stage	Sqm	1	3.29	4.27		14.05
	Skirting	Sqm	1	10.85		0.15	1.63
	Staff Toilet	Sqm	1	1.05	1.34		1.41
	Dadoing	Sqm	2	2.39		1.80	8.60
	Ded - Door	Sqm	-1	0.75		1.74	-1.31
	Block 6						
	Girls Toilet	Sqm	1	2.80	3.20		8.96
	Dadoing	Sqm	2	6.00		1.80	21.60
	Ded						
	Door-D	Sqm	-1	0.75		1.98	-1.49
	Ventilator-V	Sqm	-2	0.26		0.34	-0.18
	Boys Toilet	Sqm	1	2.70	3.12		8.42
	Dadoing	Sqm	2	5.82		1.80	20.95
	Ded						
	Door-D	Sqm	-1	0.75		1.98	-1.49
	Ventilator-V	Sqm	-2	0.26		0.34	-0.18
		Sqm	4	1.89		1.80	13.57
	Total Qty	Sqm			Total		241.25
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	Block 2 & 3						
	Entry Step Tread	Sqm	3	1.22	0.30		1.10
	Entry Step Tread	Sqm	2	1.10	0.30		0.66
	Riser	Sqm	4	1.22		0.15	0.73
	Riser	Sqm	3	1.10		0.15	0.50
	Ramp	Sqm	1	1.23	2.90		3.57
	Block 4						
	Entry Step Tread	Sqm	3	3.06	0.30		2.75
	Entry Step Riser	Sqm	4	3.06		0.15	1.84
	Ramp	Sqm	1	1.60	1.50		2.40
	Stage Step Tread	Sqm	3	1.30	0.30		1.17
	Stage Step Riser	Sqm	4	1.30		0.15	0.78
	Block 5						
	Entry Step Tread	Sqm	2	1.50	0.30		0.90
	Entry Step Riser	Sqm	3	1.50		0.15	0.68
	Total Qty	Sqm			Total		17.08
25	Repairing door and window frames with available wood to the required size. PWD 18-19, Sl No.37.12, Pg No 267						
	Block 2 & 3						
	Door-D	Sqm	1	1.10		2.10	2.00
	Window-W	Sqm	1	0.90		1.20	1.00
	Block 4						
	Door-D	Sqm	4	1.18		2.10	10.00
	Door-D1	Sqm	1	0.91		1.99	2.00
	Door-D2	Sqm	1	1.10		2.05	2.00
	Door-D3	Sqm	2	1.06		2.10	4.00
	Door-D4	Sqm	1	0.75		1.75	1.00
	Window-W	Sqm	11	1.19		1.47	19.00
	Window-W1	Sqm	1	1.07		1.34	1.00
	Window-W2	Sqm	2	0.84		1.62	3.00
	Window-W3	Sqm	2	2.98		1.62	10.00
	Window-W4	Sqm	2	1.04		1.35	3.00
	Block 5						
	Door-D	Sqm	1	0.9		2.10	2.00
	Window-W	Sqm	3	0.96		1.20	3.00
	Block 6						
	Door-D	Sqm	2	0.75		1.98	3.00
		Sqm			Total		66.00
	Total 70% Quantity	Sqm			Total		46.20

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	Block 2 & 3						
	Door-D	Sqm	1	1.10		2.10	2.00
	Window-W	Sqm	1	0.90		1.20	1.00
	Block 4						
	Door-D	Sqm	4	1.18		2.10	10.00
	Door-D1	Sqm	1	0.91		1.99	2.00
	Door-D2	Sqm	1	1.10		2.05	2.00
	Door-D3	Sqm	2	1.06		2.10	4.00
	Door-D4	Sqm	1	0.75		1.75	1.00
	Window-W	Sqm	11	1.19		1.47	19.00
	Window-W1	Sqm	1	1.07		1.34	1.00
	Window-W2	Sqm	2	0.84		1.62	3.00
	Window-W3	Sqm	2	2.98		1.62	10.00
	Window-W4	Sqm	2	1.04		1.35	3.00
	Block 5						
	Door-D	Sqm	1	0.90		2.10	2.00
	Window-W	Sqm	3	0.96		1.20	3.00
	Block 6						
	Door-D	Sqm	2	0.75		1.98	3.00
							66.00
	Total 70% Quantity	Sqm			Total		46.20
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Block 2 & 3						
	Hand wash room area	Sqm	2	6.09		2.50	30.00
	Ded						
	Door Opening	Sqm	-1	1.09		2.50	-3.00
	Window Opening	Sqm	-3	1.25		1.35	-5.00
	Special Toilet	Sqm	2	3.99		1.90	15.00
	Ded						
	Door-D1	Sqm	-1	1.20		1.65	-2.00
	Ventilator	Sqm	-1	0.60		0.60	-0.36
	Kitchen	Sqm	2	6.72		3.00	40.00
	Ded						
	Door-D	Sqm	-1	1.100		2.10	-2.00
	Window-W	Sqm	-1	0.90		1.20	-1.00
	Kitchen Ceiling	Sqm	1	3.64	3.08		11.21
	Special Toilet Ceiling	Sqm	1	1.50	2.50		3.75
	Block 4						
	Class Room	Sqm	2	7.12		5.05	72.00
	Class Room	Sqm	2	15.44		5.05	156.00
	Entrance Hall	Sqm	2	11.71		5.05	118.00
	Hall	Sqm	2	19.39		5.05	196.00
	Stage	Sqm	2	7.56		4.55	69.00
	Staff Toilet	Sqm	2	2.39		0.15	1.00
	Ded						
	Door-D	Sqm	-4	1.18		2.10	-10.00
	Door-D1	Sqm	-1	0.91		1.99	-2.00
	Door-D2	Sqm	-1	1.10		2.05	-2.00
	Door-D3	Sqm	-2	1.06		2.10	-4.00
	Door-D4	Sqm	-1	0.75		1.75	-1.00
	Window-W	Sqm	-11	1.19		1.47	-19.00
	Window-W1	Sqm	-1	1.07		1.34	-1.00
	Window-W2	Sqm	-2	0.84		1.62	-3.00
	Window-W3	Sqm	-2	2.98		1.62	-10.00
	Window-W4	Sqm	-2	1.04		1.35	-3.00
	Staff Toilet Ceiling	Sqm	1	1.51	1.57		2.00
	Block 5						
	Anganavadi	Sqm	2	10.49		4.00	84.00
	Ded						
	Door-D	Sqm	-1	0.90		2.10	-2.00
	Window-W	Sqm	-3	0.96		1.20	-3.46
	Block 6						
	Girls Toilet	Sqm	2	6.00		0.45	5.40
	Boys Toilet	Sqm	2	5.82		0.45	5.24
	Ded						
	Door-D	Sqm	-4	0.75		1.98	-5.94
	Ventilator-V	Sqm	-4	0.26		0.34	-0.35
	Total Quantity	Sqm			Total		728.49

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	Block 4	Sqm	1				369.20
	Block 5	Sqm	1				67.76
		Sqm			Total		436.96
	Total 60% Quantity	Sqm					262.18
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	School Building	Sqm	1				436.96
		Sqm			Total		436.96
	Total 40% Quantity	Sqm					174.78
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	Block 4	Rmt	1	36.50			36.50
	Block 5	Rmt	1	7.70			7.70
		Rmt			Total		44.20
	Total 80% Quantity	Rmt					35.36
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	Block 2 & 3						
	Door-D	Sqm	1	1.10		2.10	2.31
	Window-W	Sqm	1	0.90		1.20	1.08
	Block 4						
	Door-D	Sqm	4	1.18		2.10	9.91
	Door-D1	Sqm	1	0.91		1.99	1.81
	Door-D2	Sqm	1	1.10		2.05	2.26
	Door-D3	Sqm	2	1.06		2.10	4.45
	Door-D4	Sqm	1	0.75		1.75	1.31
	Window-W	Sqm	11	1.19		1.47	19.24
	Window-W1	Sqm	1	1.07		1.34	1.43
	Window-W2	Sqm	2	0.84		1.62	2.72
	Window-W3	Sqm	2	2.98		1.62	9.66
	Window-W4	Sqm	2	1.04		1.35	2.81
	Block 5						
	Door-D	Sqm	1	0.90		2.10	1.89
	Window-W	Sqm	3	0.96		1.20	3.46
	Block 6						
	Door-D	Sqm	2	0.75		1.98	2.97
		Sqm			Total		67.31
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Block 2 & 3						
	Door-D	Sqm	1	1.10		2.10	2.31
	Window-W	Sqm	1	0.90		1.20	1.08
	Block 4						
	Door-D	Sqm	4	1.18		2.10	9.91
	Door-D1	Sqm	1	0.91		1.99	1.81
	Door-D2	Sqm	1	1.10		2.05	2.26
	Door-D3	Sqm	2	1.06		2.10	4.45
	Door-D4	Sqm	1	0.75		1.75	1.31
	Window-W	Sqm	11	1.19		1.47	19.24
	Window-W1	Sqm	1	1.07		1.34	1.43
	Window-W2	Sqm	2	0.84		1.62	2.72
	Window-W3	Sqm	2	2.98		1.62	9.66
	Window-W4	Sqm	2	1.04		1.35	2.81
	Block 5						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Door-D	Sqm	1	0.90		2.10	1.89
	Window-W	Sqm	3	0.96		1.20	3.46
	Block 6						
	Door-D	Sqm	2	0.75		1.98	2.97
		Sqm			Total		67.31
33	Providing and laying non - asbestos high impact polypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, rafters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51						
	Hand Washroom Area	Sqm	1.00	3.30	3.59		11.85
	Boys n Girls Toilet	Sqm	1.00	7.40	4.7		34.78
		Sqm			Total		46.63
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	Block 2 & 3	Sqm	1	26.40		0.45	11.88
	Special Toilet Ceiling	Sqm	1	1.86	3.15		5.86
	Kitchen Ceiling	Sqm	1	4.30	3.75		16.13
	Block 4	Sqm	1	76.00		0.45	34.20
	Staff Toilet Ceiling	Sqm	1	1.51	1.57		2.37
	Block 5	Sqm	1	26.82		0.45	12.07
	Block 6	Sqm	1	19.60		0.45	8.82
		Sqm			Total		91.33
35	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Entrance Area	Sqm	1.00	11.92	12.00		143.00
	Total Qty	Sqm					143.00
36	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Total Area	Rmt	1.00	30.00			30.00
	Total Qty	Rmt			Total		30.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Surrounding Building	Sqm	1.00	150.00			150.00
	Total Qty	Sqm			Total		150.00

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MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - NEERESHWALYA

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)		
	Basic rate		25755
	Sub Total		25755
	Add 10% For area weightage		2575.50
	Total	Rate	28330.50 Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)		
	Basic rate		5.00
	Sub Total		5.00
	Add 10% For area weightage		0.50
	Total	Rate	5.50 Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)		
	Basic rate		3391
	Sub Total		3391
	Add 10% For area weightage		339.10
	Total	Rate	3730.10 Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116		
	Basic rate		273
	Sub Total		273
	Add 10% For area weightage		27.30
	Total	Rate	300.30 Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer		
	Basic Rate		102.00
	Sub Total		102
	Add 10% For Area weightage		10.20
	Total	Rate	112.20 Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm

16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2			
	do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm

22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate		90.00	
	Sub Total		90	
	Add 10% For Area weightage for Labour		9.00	
	Total	Rate	99.00	Sqm

28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267			
	Basic Rate		407.00	
	Sub Total		407	
	Add 10% For Area weightage		40.70	
	Total Rate	Rate	447.70	Sqm
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11			
	Basic Rate		814.00	
	Sub Total		814	
	Add 10% For Area weightage		81.40	
	Total Rate	Rate	895.40	Sqm
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267			
	Baisc rate		101.00	
	Sub Total		101	
	Add 10% For area weightage (Mangalore City)		10.10	
	Total Rate	Rate	111.10	Rmt
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123			
	Basic Rate		56.00	
	Sub Total		56	
	Add 10% For Area weightage		5.60	
	Total Rate	Rate	61.60	Sqm
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123			
	Basic Rate		50.00	
	Sub Total		50	
	Add 10% For Area weightage		5.00	
	Total Rate	Rate	55.00	Sqm
33	Providing and laying non - asbestos high impact ploypropylene reinforced corrugated cement roofing sheet reinforced with Other colours and with a blend of strong factory made fibre as per IS:14871 and IS:9933:1995 (E) roofing upto any pitch and fixing with polymer coated J or L hooks, bolts and nuts 8mm dia, G I plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete but excluding the cost of purlins, refters and trusses. including cutting to size and shape of corrugated sheets wherever required. and cost of materials, labour, complete as per specifications. PWD 18-19,SI No.8.31.2,Pg No 51			
	Basic Rate		590.00	
	Sub Total		590.00	
	Add 10% For Area weightage		59.00	
	Total Rate	Rate	649.00	Sqm

34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
35	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
36	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowring plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm

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MANGALURU SMART CITY

1.1 Grand Summary of E-Smart school - GUPS BOLAR AND URDU SCHOOL

Sr. No.	Description	Cost In INR
1	E-Smart School - GUPS Bolar & Urdu	
a	Building & Compound wall works	11,640,120
b	Electrical Works	442,954
c	Plumbing Works	288,470
d	External Development - Softscape & Hardscape	3,284,947
	Total Cost	15,656,491

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MANGALURU SMART CITY
1.2 BOQ of E-Smart School - GUPS BOLAR AND URDU SCHOOL

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.24	28330.50	6,904
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	1264.80	5.50	6,956
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	58.67	3730.10	218,845
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	505.92	300.30	151,928
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	2597.76	112.20	291,469
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	372.93	374.00	139,476
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	1350.00	0.77	1,040
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	15000.00	0.39	5,775
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	23.40	67.10	1,570

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	1584.41	328.90	521,112
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	109.53	6490.00	710,850
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	275.00	797.50	219,313
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	333.16	6817.80	2,271,418
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	24.99	77860.20	1,945,493
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	892.05	289.30	258,070
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	3556.64	397.10	1,412,342

Sr .No.	Description	Unit	Quantity	Rate	Amount
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	20.00	161.70	3,234
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	905.62	132.00	119,541
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	30.00	666.60	19,998
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EO)	Each	10.00	893.00	8,930
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	841.23	304.70	256,323
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	497.90	1452.00	722,951
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	28.71	5280.00	151,589
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	412.22	1332.10	549,118
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	50.78	7914.50	401,898
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	101.50	753.50	76,480
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	101.50	753.50	76,480

Sr .No.	Description	Unit	Quantity	Rate	Amount
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	1998.62	99.00	197,864
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	679.50	447.70	304,212
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	453.00	895.40	405,616
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	88.00	111.10	9,777
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	167.95	61.60	10,346
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	167.95	55.00	9,237
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	266.10	578.60	153,965
B	External Development - Softscape & Hardscape				
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	73.00	50.60	3,694
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	111.00	912.00	101,232

Sr .No.	Description	Unit	Quantity	Rate	Amount
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	519.00	25.30	13,131
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149	Sqm	519.00	101.20	52,523
39	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)	Sqm	435.00	2067.00	899,145
40	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	335.00	1446.50	484,578
41	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	412.00	9.90	4,079
42	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	504.00	514.80	259,459
43	1 Surface Preparation: Saw cutting further to construction and contol joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vaccum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.				

Sr .No.	Description	Unit	Quantity	Rate	Amount
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF-STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m ³ to 12 kg/m ³ . TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)				
	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)	Sqm	356.50	2600.00	926,900
44	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34), followed by Providing and filling Decksheild putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)	Rmt	74.00	130.00	9,620
45	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	356.50	1400.00	499,100
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)	Rmt	41.00	491.70	20,160

Sr .No.	Description	Unit	Quantity	Rate	Amount
47	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)	Sqm	24.00	471.90	11,326
GRAND TOTAL					14,925,067

GST @12% on SOR & Non SOR 13,379,285 1605514
GST @18% on Market 1,435,620 258412

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY

1.3 Measurement of E-SMART SCHOOL - GUPS BOLAR AND URDU SCHOOL

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	3756.00	Area		3756.00
	Ded	Sqm	-1	1319.00	Area		-1319.00
		Sqm					2437.00
		Ha					0.244
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	38.00		2.00	152.00
	Right side	Sqm	2	80.00		2.60	416.00
	Left side	Sqm	2	92.00		2.60	478.40
	Back side	Sqm	2	40.00		2.60	208.00
	Pillar	Sqm	2	2.60		2.00	10.40
		Sqm			Total		1264.80
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	15.20	0.23	2.00	6.99
	Right side	Cum	1	32.00	0.23	2.60	19.14
	Left side	Cum	1	36.80	0.23	2.60	22.01
	Back side	Cum	1	16.00	0.23	2.60	9.57
	Pillar	Cum	2	1.04	0.23	2.00	0.96
	Total Quantity	Cum			Total		58.67
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	15.20		2.00	60.80
	Right side	Sqm	2	32.00		2.60	166.40
	Left side	Sqm	2	36.80		2.60	191.36
	Back side	Sqm	2	16.00		2.60	83.20
	Pillar	Sqm	2	1.04		2.00	4.16
	Total Quantity	Sqm			Total		505.92
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	38.00		2.00	152.00
	Right side	Sqm	2	80.00		2.60	416.00
	Left side	Sqm	2	92.00		2.60	478.40
	Back side	Sqm	2	40.00		2.60	208.00
	Pillar	Sqm	2	2.60		2.00	10.40
	Block 1						
	Outside Building	Sqm	1	30.60		3.45	105.57
	Toilet	Sqm	1	6.92		2.75	19.03
	Deduction						
	Door-D	Sqm	-2	1.20		2.10	-5.04
	Window-W	Sqm	-4	1.50		1.20	-7.20
	Chejja						
	Window-W	Sqm	8	1.80		0.60	8.64
	Block 2						
	Outside Building	Sqm	1	160.40		5.03	806.01
	Ded						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Door-D	Sqm	-5	1.13		2.03	-11.47
	Door-D1	Sqm	-2	1.03		2.20	-4.53
	Door-D2	Sqm	-7	1.19		2.20	-18.33
	Door-D4	Sqm	-2	0.76		2.10	-3.19
	Window-W	Sqm	-7	0.95		1.40	-9.31
	Window-W1	Sqm	-8	1.22		1.92	-18.74
	Window-W3	Sqm	-1	0.90		1.50	-1.35
	Window-W4	Sqm	-7	1.17		1.50	-12.29
	Window-W5	Sqm	-3	0.93		1.52	-4.24
	Ramp	Sqm	2	1.30		0.23	0.59
	Circular Column	Sqm	1	1.57		3.50	5.50
	Column C1	Sqm	2	1.46		2.20	6.42
	Block 3						
	Outside wall	Sqm	1	43.08		5.05	217.55
	Ramp Side	Sqm	2	1.40		0.23	0.64
	Ded						
	Door-D	Sqm	-5	1.20		2.10	-12.60
	Window-W	Sqm	-9	1.20		1.50	-16.20
	Block 5						
	Outside Building-GF	Sqm	1	23.75		3.30	78.38
	Ded						
	Door-D	Sqm	-2	1.20		2.10	-5.04
	Window-W	Sqm	-5	1.20		1.30	-7.80
	Window-W1	Sqm	-1	1.00		1.30	-1.30
	Window-W2	Sqm	-1	1.35		1.30	-1.76
	Outside Building-FF	Sqm	1	46.50		3.00	139.50
	Ded						
	Door-D	Sqm	-3	1.20		2.10	-7.56
	Window-W3	Sqm	-7	1.20		1.20	-10.08
	Ventilator V	Sqm	-2	0.50		0.30	-0.30
	Parapet wall	Sqm	2	16.50		0.75	24.75
	Column	Sqm	5	0.47		3.00	7.07
	Ceiling - FF	Sqm	1	23.00	Area		23.00
	Block 8						
	Outside wall	Sqm	1	15.35		3.45	52.96
	Ded						
	Door	Sqm	-1	1.20		2.10	-2.52
	Window	Sqm	-1	1.50		1.20	-1.80
		Sqm			Total		2597.76
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	38.00		2.00	76.00
	B1 Block	Sqm	1	20.76		1.20	24.91
	B2 Block	Sqm	1	160.40		1.20	192.48
	B3 Block	Sqm	1	43.08		1.20	51.70
	B5 Block	Sqm	1	19.00		1.20	22.80
	B8 Block	Sqm	1	4.20		1.20	5.04
		Sqm			Total		372.93
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	27	50.00			1350.00
		Cm			Total		1350.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	15000				15000.00
		L			Total		15000.00
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	4.20		2.00	8.40
	Staircase Hand rail	Sqm	1	15.00		1.00	15.00
		Sqm			Total		23.40
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	Block 1	Cum	1	37.52	0.30	0.45	5.07
	Football Ground	Cum	1	330.00	Area	0.10	33.00
	Block 2	Cum	1	160.40	0.30	0.45	21.65
	Block 3	Cum	1	43.08	0.30	0.45	5.82
	Block 5	Cum	1	23.75	0.30	0.45	3.21
	Block 8	Cum	1	15.35	0.30	0.45	2.07
	Entrance Pathway	Cum	1	133.00	2.07	0.70	192.50
	RCC Covered Drain						
	SWD - 0.45m Clear Width	Cum	1	39.50	0.95	1.30	48.78
	SWD - 0.60m Clear Width	Cum	1	707.15	1.10	1.61	1248.46
	SWD Chamber	Cum	10	0.70	0.70	0.50	2.45
	UPVC Pipe	Cum	1	30.00	0.75	0.95	21.40
		Cum			Total		1584.41
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD - 0.45m Clear Width	Cum	1	39.50	0.95	0.10	3.75
	SWD - 0.60m Clear Width	Cum	1	707.15	1.10	0.10	77.79
	SWD Chamber	Cum	10	0.70	0.70	0.10	0.49
	Entrance Pathway	Cum	1	133.00	2.07	0.10	27.50
					Total		109.53
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	M15 Cement Concrete flooring for Entrance area	Sqm	1	133.00	2.07		275.00
		Sqm			Total		275.00
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD - 0.45m Clear Width	Cum	1	39.50	0.65	0.15	3.85
	SWD - 0.60m Clear Width	Cum	1	707.15	0.80	0.15	84.86
	SWD Chamber	Cum	10	0.50	0.50	0.10	0.25
	Side wall						
	SWD - 0.45m Clear Width	Cum	2	39.50	0.10	0.9	7.11
	SWD - 0.60m Clear Width	Cum	2	707.15	0.10	1.21	170.42
	SWD Chamber	Cum	10	1.20	0.10	0.30	0.36
	Covered Slab						
	SWD - 0.45m Clear Width	Cum	1	39.50	0.45	0.15	2.67
	SWD - 0.60m Clear Width	Cum	1	707.15	0.60	0.15	63.64
		Cum					333.16
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	88.96	75		6672.00
	Side wall	Kg	1	177.89	75		13341.75
	Covered Slab	Kg	1	66.31	75		4973.25
		Kg					24987.00
		MT					24.99
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD - 0.45m Clear Width	Sqm	2	39.50		0.15	11.85
	SWD - 0.60m Clear Width	Sqm	2	707.15		0.15	212.14
	SWD Chamber	Sqm	10	2.00		0.10	2.00
	RCC Covered Drain						
	Slab Bottom						
	SWD - 0.45m Clear Width	Sqm	1	39.50	0.45		17.78
	SWD - 0.60m Clear Width	Sqm	1	707.15	0.60		424.29
	Slab side						
	SWD - 0.45m Clear Width	Sqm	2	39.50		0.15	11.85
	SWD - 0.60m Clear Width	Sqm	2	707.15		0.15	212.14
		Sqm					892.05
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD - 0.45m Clear Width	Sqm	4	39.50		0.9	142.20
	SWD - 0.60m Clear Width	Sqm	4	707.15		1.205	3408.44
	SWD Chamber	Sqm	10	2.00		0.30	6.00
		Sqm					3556.64

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28,10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	20.00				20.00
		Nos					20.00
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				1321.09
	PCC Qty	Cum	-1				-82.03
	RCC Qty	Cum	-1				-333.16
	UPVC Pipe 110mm Dia	Cum	-1	30.00	0.01		-0.28
		Cum					905.62
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	30.00			30.00
		Rmt					30.00
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	10.00				10.00
		Each					10.00
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	Block 1						
	Outside wall	Sqm	1	30.60		3.45	105.57
	Toilet Building	Sqm	1	6.92		2.75	19.03
	Block 2						
	Outside wall	Sqm	1	160.40		5.03	806.01
	Block 3						
	Outside wall	Sqm	1	43.08		5.05	217.55
	Ramp Side	Sqm	2	1.40		0.23	0.64
	Block 8						
	Outside wall	Sqm	1	15.35		3.45	52.96
		Sqm				Total	1201.76
	Total 70% Quantity	Sqm				Total	841.23
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	Block 2						
	Staff Room	Sqm	1	5.50	6.20		34.10
	Skirting	Sqm	1	23.40		0.15	3.51
	Block 1						
	Anganavadi Class Room	Sqm	1	5.14	7.01		36.03
	Skirting	Sqm	1	24.30		0.15	3.65
	Block 2						
	Corridor	Sqm	1	4.75	1.10		5.23

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Skirting	Sqm	1	4.75		0.15	0.71
	Corridor	Sqm	1	50.50	1.60		80.80
	Skirting	Sqm	1	50.50		0.15	7.58
	Corridor	Sqm	1	10.50	2.70		28.35
	Skirting	Sqm	1	10.50		0.15	1.58
	Class Room	Sqm	1	5.90	5.80		34.22
	Skirting	Sqm	1	23.40		0.15	3.51
	Class Room	Sqm	1	24.50	3.00		73.50
	Skirting	Sqm	1	55.00		0.15	8.25
	Block 3						
	Class Room	Sqm	1	15.25	5.60		85.40
	Skirting	Sqm	1	41.70		0.15	6.26
	Corridor	Sqm	1	16.00	1.84		29.44
	Skirting	Sqm	1	16.00		0.15	2.40
	Block 5						
	Corridor-GF	Sqm	1	7.70	1.60		12.32
		Sqm	1	11.10	0.90		9.99
	Skirting	Sqm	1	18.80		0.15	2.82
	Corridor-FF	Sqm	1	23.00	Area		23.00
	Skirting	Sqm	1	35.00		0.15	5.25
	Total Qty	Sqm			Total		497.90
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	Block 2						
	Head Miss Chamber	Sqm	1	4.50	5.70		25.65
	Skirting	Sqm	1	20.40		0.15	3.06
	Total Qty	Sqm			Total		28.71
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108						
	Block 1						
	Store Room	Sqm	1	5.14	2.00		10.28
	Skirting	Sqm	1	14.28		0.15	2.14
	Toilet	Sqm	1	2.00	2.00		4.00
	Dadooing	Sqm	2	4.00		1.80	14.40
	Ded						
	Door-D	Sqm	-1	1.20		2.10	-2.52
	Block 2						
	Hall	Sqm	1	5.50	13.60		74.80
	Skirting	Sqm	1	38.20		0.15	5.73
	Stage	Sqm	1	5.50	4.40		24.20
	Skirting	Sqm	1	14.30		0.15	2.15
	Skirting	Sqm	1	3.10		0.65	2.02
	Hall	Sqm	1	8.81	5.15		45.37
	Skirting	Sqm	1	27.92		0.15	4.19
	Stage	Sqm	1	5.50	4.40		24.20
	Skirting	Sqm	1	14.30		0.15	2.15
	Skirting	Sqm	1	1.90		0.30	0.57
	Wash room	Sqm	1	2.45	4.20		10.29
	Ddadooing	Sqm	1	13.30		2.00	26.60
	Ded-D	Sqm	-1	1.13		2.03	-2.29
	Wash room	Sqm	1	2.45	3.23		7.91
	Dadooing	Sqm	1	11.36		2.00	22.72
	Ded-D	Sqm	-1	1.13		2.03	-2.29
	Toilet	Sqm	1	2.45	1.00		2.45
	Dadooing	Sqm	1	6.90		2.00	13.80
	Ded-D4	Sqm	-1	0.76		2.10	-1.60
	Toilet	Sqm	1	2.45	4.40		10.78
	Dadooing	Sqm	1	13.70		2.00	27.40
	Ded-D4	Sqm	-1	0.76		2.10	-1.60
	Toilet	Sqm	1	3.00	3.21		9.63
	Dadooing	Sqm	1	12.42		2.00	24.84
	Ded-D2	Sqm	-1	1.19	2.00		-2.38
	Window W5	Sqm	-1	0.93		1.52	-1.41
	Toilet	Sqm	1	2.45	3.21		7.86
	Dadooing	Sqm	1	11.32		2.00	22.64
	Dadooing	Sqm	6	1.25		2.00	15.00
	Ded -Opening	Sqm	-1	1.70		2.10	-3.57
	Window W4	Sqm	-1	1.17		1.50	-1.76

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Block 8						
	Akshara Dasoha Kendra	Sqm	1	3.72	3.09		11.48
	Skirting	Sqm	1	13.61		0.15	2.04
	Total Qty	Sqm			Total		412.22
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	Block 1						
	Entry Step Tread	Sqm	2	1.10	0.30		0.66
	Riser	Sqm	3	1.10		0.15	0.50
	Block 2						
	Entry Step Tread	Sqm	3	1.19	0.30		1.07
	Entry Step Riser	Sqm	4	1.19		0.15	0.71
	Side	Sqm	2	0.90		0.23	0.41
	Entry Step Tread	Sqm	3	1.60	0.30		1.44
	Entry Step Riser	Sqm	4	1.60		0.15	0.96
	Side	Sqm	2	0.90		0.23	
	Entry Step Tread	Sqm	3	1.50	0.30		1.35
	Entry Step Riser	Sqm	4	1.50		0.15	0.90
	Side	Sqm	2	0.90		0.23	0.41
	Entry Step Tread	Sqm	2	0.60	0.30		0.36
	Entry Step Riser	Sqm	3	0.60		0.15	0.27
	Stage step Tread	Sqm	4	1.20	0.30		1.44
	Stage step Riser	Sqm	6	1.20		0.15	1.08
	Stage step Tread	Sqm	2	1.30	0.30		0.78
	Stage step Riser	Sqm	3	1.30		0.15	0.59
	Stage step Tread	Sqm	2	2.10	0.30		1.26
	Stage step Riser	Sqm	3	1.30		0.15	0.59
	Ramp	Sqm	1	1.40	3.90		5.46
	Ramp	Sqm	1	1.40	0.98		1.37
	Block 3						
	Ramp	Sqm	1	3.00	1.50		4.50
	Block 5						
	Staircase GF-FF -Tread	Sqm	19	1.03	0.30		5.84
	Staircase GF-FF -Riser	Sqm	21	1.03		0.15	3.23
	Landing	Sqm	1	2.10	1.16		2.44
	Staircase FF-TF -Tread	Sqm	19	1.03	0.30		5.84
	Staircase FF-TF -Riser	Sqm	21	1.03		0.15	3.23
	Landing	Sqm	1	2.10	1.16		2.44
	Block 8						
	Entry Step Tread	Sqm	3	1.10	0.30		0.99
	Entry Step Riser	Sqm	4	1.10		0.15	0.66
	Total Qty	Sqm			Total		50.78
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	Block 1						
	Door-D	Sqm	2	1.20		2.10	5.00
	Window-W	Sqm	4	1.50		1.20	7.00
	Block 2						
	Door-D	Sqm	7	1.13		2.03	16.00
	Door-D1	Sqm	2	1.03		2.20	5.00
	Door-D2	Sqm	7	1.19		2.20	18.00
	Door-D3	Sqm	1	1.2		1.60	2.00
	Door-D4	Sqm	2	0.76		2.10	3.00
	Door-D5	Sqm	4	0.76		1.93	6.00
	Door-D6	Sqm	1	1.05		2.10	2.00
	Window-W	Sqm	7	0.95		1.40	9.00
	Window-W1	Sqm	8	1.22		1.92	19.00
	Window-W3	Sqm	1	0.9		1.50	1.00
	Window-W4	Sqm	8	1.17		1.50	14.00
	Window-W5	Sqm	3	0.93		1.52	4.00
	Block 3						
	Door-D	Sqm	5	1.20		2.10	13.00
	Window-W	Sqm	9	1.20		1.50	16.00
	Block 8						
	Door-D	Sqm	1	1.20		2.10	3.00
	Window-W	Sqm	1	1.5		1.20	2.00
		Sqm			Total		145.00
	Total 70% Quantity	Sqm			Total		101.50

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	Block 1						
	Door-D	Sqm	2	1.20		2.10	5.00
	Window-W	Sqm	4	1.50		1.20	7.00
	Block 2						
	Door-D	Sqm	7	1.13		2.03	16.00
	Door-D1	Sqm	2	1.03		2.20	5.00
	Door-D2	Sqm	7	1.19		2.20	18.00
	Door-D3	Sqm	1	1.20		1.60	2.00
	Door-D4	Sqm	2	0.76		2.10	3.00
	Door-D5	Sqm	4	0.76		1.93	6.00
	Door-D6	Sqm	1	1.05		2.10	2.00
	Window-W	Sqm	7	0.95		1.40	9.00
	Window-W1	Sqm	8	1.22		1.92	19.00
	Window-W3	Sqm	1	0.90		1.50	1.00
	Window-W4	Sqm	8	1.17		1.50	14.00
	Window-W5	Sqm	3	0.93		1.52	4.00
	Block 3						
	Door-D	Sqm	5	1.20		2.10	13.00
	Window-W	Sqm	9	1.20		1.50	16.00
	Block 8						
	Door-D	Sqm	1	1.20		2.10	3.00
	Window-W	Sqm	1	1.50		1.20	2.00
							145.00
	Total 70% Quantity	Sqm			Total		101.50
28	KSRRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Block 1						
	Anganavadi Class Room	Sqm	2	12.15		3.00	73.00
	Store Room	Sqm	2	7.14		3.00	43.00
	Toilet	Sqm	2	4.00		2.30	18.00
	Ded						
	Door-D	Sqm	-2	1.20		2.10	-5.00
	Window-W	Sqm	-4	1.50		1.20	-7.00
	Ceiling						
	Anganavadi Class Room	Sqm	1	5.14	7.01		36.00
	Store Room	Sqm	1	5.14	2.00		10.00
	Toilet	Sqm	1	2.00	2.00		4.00
	Block 2						
	Staff Room	Sqm	2	11.70		4.8	112.00
	Class Room	Sqm	2	11.70		4.8	112.00
	Class Room	Sqm	2	27.50		4.8	264.00
	Head Miss Chamber	Sqm	2	10.20		4.8	97.92
	Hall	Sqm	2	19.10		4.8	183.36
	Stage	Sqm	2	9.90		4.15	82.00
	Hall	Sqm	2	13.96		4.8	134.00
	Stage	Sqm	2	9.90		4.50	89.00
	Wash room	Sqm	2	6.65		2.80	37.00
	Wash room	Sqm	2	5.68		2.80	32.00
	Toilet	Sqm	2	3.45		2.80	19.00
	Toilet	Sqm	2	6.85		2.80	38.00
	Toilet	Sqm	2	6.21		2.80	35.00
	Toilet	Sqm	2	5.66		2.80	32.00
	Ded						
	Door-D	Sqm	-7	1.13		2.03	-16.00
	Door-D1	Sqm	-2	1.03		2.20	-5.00
	Door-D2	Sqm	-7	1.19		2.20	-18.00
	Door-D3	Sqm	-1	1.20		1.60	-2.00
	Door-D4	Sqm	-2	0.76		2.10	-3.00
	Door-D5	Sqm	-4	0.76		1.93	-6.00
	Door-D6	Sqm	-1	1.05		2.10	-2.00
	Window-W	Sqm	-7	0.95		1.40	-9.00
	Window-W1	Sqm	-8	1.22		1.92	-19.00
	Window-W3	Sqm	-1	0.90		1.50	-1.00
	Window-W4	Sqm	-8	1.17		1.50	-14.00
	Window-W5	Sqm	-3	0.93		1.52	-4.00
	Block 3						
	Class Room	Sqm	2	20.85		4.60	191.82
	Ded						
	Door-D	Sqm	-5	1.20		2.10	-12.60

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Window-W	Sqm	-9	1.20		1.50	-16.20
	Block 5						
	Staff Room-GF	Sqm	2	11.82		3.00	70.92
	Store Room-GF	Sqm	2	7.00		3.00	42.00
	Room-GF	Sqm	2	10.65		3.00	63.90
	Ceiling	Sqm	1	75.00	Area		75.00
	Hall-FF	Sqm	2	17.00		3.00	102.00
	Staff Room	Sqm	2	9.30		3.00	55.80
	Ceiling	Sqm	1	74.00	Area		74.00
	Ded						
	Door-D	Sqm	-6	1.20		2.10	-15.00
	Window-W	Sqm	-5	1.20		1.30	-8.00
	Window-W1	Sqm	-1	1.00		1.30	-1.00
	Window-W2	Sqm	-1	1.35		1.30	-2.00
	Window-W3	Sqm	-7	1.20		1.20	-10.00
	Ventilator-V	Sqm	-2	0.50		0.30	-0.30
	Block 8						
	Akshara Dasoha Kendra	Sqm	2	6.81		3.00	40.83
	Ded						
	Door-D	Sqm	-1	1.20		2.10	-2.52
	Window-W	Sqm	-1	1.50		1.20	-1.80
	Ceiling	Sqm	1	3.72	3.09		11.49
	Total Quantity	Sqm			Total		1998.62
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	Block 2	Sqm	1				938.70
	Block 3	Sqm	1				193.80
		Sqm			Total		1132.50
	Total 60% Quantity	Sqm					679.50
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	School Building	Sqm	1				1132.50
		Sqm			Total		1132.50
	Total 40% Quantity	Sqm					453.00
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	Block 2	Rmt	1	93.00			93.00
	Block 3	Rmt	1	17.00			17.00
		Rmt			Total		110.00
	Total 80% Quantity	Rmt					88.00
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	Block 1						
	Door-D	Sqm	2	1.20		2.10	5.04
	Window-W	Sqm	4	1.50		1.20	7.20
	Block 2						
	Door-D	Sqm	7	1.13		2.03	16.06
	Door-D1	Sqm	2	1.03		2.20	4.53
	Door-D2	Sqm	7	1.19		2.20	18.33
	Door-D3	Sqm	1	1.20		1.60	1.92
	Door-D4	Sqm	2	0.76		2.10	3.19
	Door-D5	Sqm	4	0.76		1.93	5.87
	Door-D6	Sqm	1	1.05		2.10	2.21
	Window-W	Sqm	7	0.95		1.40	9.31
	Window-W1	Sqm	8	1.22		1.92	18.74
	Window-W3	Sqm	1	0.90		1.50	1.35
	Window-W4	Sqm	8	1.17		1.50	14.04
	Window-W5	Sqm	3	0.93		1.52	4.24
	Wooden Column	Sqm	18	0.40		2.40	17.28
	Block 3						
	Door-D	Sqm	5	1.20		2.10	12.60
	Window-W	Sqm	9	1.20		1.50	16.20

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Wooden Column	Sqm	6	0.40		2.30	5.52
	Block 8						
	Door-D	Sqm	1	1.20		2.10	2.52
	Window-W	Sqm	1	1.50		1.20	1.80
		Sqm			Total		167.95
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Block 1						
	Door-D	Sqm	2	1.20		2.10	5.04
	Window-W	Sqm	4	1.50		1.20	7.20
	Block 2						
	Door-D	Sqm	7	1.13		2.03	16.06
	Door-D1	Sqm	2	1.03		2.20	4.53
	Door-D2	Sqm	7	1.19		2.20	18.33
	Door-D3	Sqm	1	1.20		1.60	1.92
	Door-D4	Sqm	2	0.76		2.10	3.19
	Door-D5	Sqm	4	0.76		1.93	5.87
	Door-D6	Sqm	1	1.05		2.10	2.21
	Window-W	Sqm	7	0.95		1.40	9.31
	Window-W1	Sqm	8	1.22		1.92	18.74
	Window-W3	Sqm	1	0.9		1.5	1.35
	Window-W4	Sqm	8	1.17		1.5	14.04
	Window-W5	Sqm	3	0.93		1.52	4.24
	Wooden Column	Sqm	18	0.40		2.40	17.28
	Block 3						
	Door-D	Sqm	5	1.20		2.10	12.60
	Window-W	Sqm	9	1.20		1.50	16.20
	Wooden Column	Sqm	6	0.40		2.30	5.52
	Block 8						
	Door-D	Sqm	1	1.20		2.10	2.52
	Window-W	Sqm	1	1.50		1.20	1.80
		Sqm			Total		167.95
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	Block 1	Sqm	1	37.52		0.45	16.88
	Rcc Slab- Anganavadi	Sqm	1	5.73	9.83		56.25
	Rcc Slab- Toilet	Sqm	1	2.23	2.60		5.80
	Block 2	Sqm	1	160.40		0.45	72.18
	Block 3	Sqm	1	43.08		0.45	19.39
	Block 5	Sqm	1	23.75		0.45	10.69
	Rcc Slab	Sqm	1	62.00	Area		62.00
	Block 8	Sqm	1	15.35		0.45	6.91
	RCC Slab	Sqm	1	16.00	Area		16.00
		Sqm			Total		266.10
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Total Area	Rmt	1.00	73.00			73.00
	Total Qty	Rmt			Total		73.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Inside Garden Area	Sqm	1.00	19.00	1.00		19.00
	Near Tank side Building Surrounding	Sqm	1.00	46.00	2.00		92.00
	Total Qty	Sqm			Total		111.00
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Football Ground	Sqm	1.00	519.00	Area		519.00
		Sqm			Total		519.00
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Football Ground	Sqm	1.00	519.00	Area		519.00
		Sqm			Total		519.00
39	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)						
	Outside Football Ground	Sqm	1.00	84.00	0.50		42.00
	Left Side of the Building	Sqm	1.00	68.89	2.25		155.00
	Right Side of the Building	Sqm	1.00	22.98	2.35		54.00
	Back side of the Building	Sqm	1.00	65.71	2.80		184.00
		Sqm			Total		435.00
40	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Urdu school Back side	Sqm	1.00	60.91	5.50		335.00
		Sqm			Total		335.00
41	KSRRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRRB 18-19,Pg No.7,SI No.2.16)						
	Front side of the Building	Sqm	1.00	82.40	5		412.00
	Total Qty	Sqm			Total		412.00
42	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.4	0.06

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Total Qty	Rmt	1.00	227.00			227.00
	Total Qty	No			Total		504.00
43	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p>						
	<p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p>						
	<p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)</p>						
	Football Ground	Sqm	1.00	31.00	11.50		356.50
	Total Qty	Sqm			Total		356.50
	CUTTING OF JOINTS						
44	<p>Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)</p>	Rmt	2.00	25.00			50.00
		Rmt	3.00	8.00			24.00
	Total Qty	Rmt			Total		74.00
	PARCKING COATING- DECKSHEILD SYSTEM- FLOWCRETE						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
45	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	1.00	31.00	11.50		356.50
	Total Qty	Sqm			Total		356.50
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kg/mtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)						
	Football Ground	Rmt	4.00	2.50			10.00
		Rmt	2.00	7.50			15.00
		Rmt	4.00	4.00			16.00
	Total Qty	Rmt			Total		41.00
47	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)						
	Entrance Area	Sqm	1.00	133.00	0.15		19.95
	Circular	Sqm	1.00	27.00	0.15		4.05
	Total Qty	Sqm			Total		24.00

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL

RATE ANALYSIS - GUPS BOLAR AND URDU SCHOOL

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, alga etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14			
	Basic Rate		725.00	
	Sub Total		725	
	add 10% For Area weightage		72.50	
	Total	Rate	797.50	Sqm
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
15	Providing and removing, centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm

16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2 do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm

22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm

28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119		
	Basic Material Rate		90.00
	Sub Total		90
	Add 10% For Area weightage for Labour		9.00
	Total	Rate	99.00 Sqm
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267		
	Basic Rate		407.00
	Sub Total		407
	Add 10% For Area weightage		40.70
	Total Rate	Rate	447.70 Sqm
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11		
	Basic Rate		814.00
	Sub Total		814
	Add 10% For Area weightage		81.40
	Total Rate	Rate	895.40 Sqm
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267		
	Baisc rate		101.00
	Sub Total		101
	Add 10% For area weightage (Mangalore City)		10.10
	Total Rate	Rate	111.10 Rmt
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123		
	Basic Rate		56.00
	Sub Total		56
	Add 10% For Area weightage		5.60
	Total Rate	Rate	61.60 Sqm
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123		
	Basic Rate		50.00
	Sub Total		50
	Add 10% For Area weightage		5.00
	Total Rate	Rate	55.00 Sqm

34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm

38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm
39	Providing and laying artline grass pavers or equivqlent block making machine with strong vibratory compaction,of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge. (Non SOR)			
	Basic Rate		2067.00	
	Sub Total		2067.00	
	Total Rate	Rate	2067.00	Sqm
40	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
41	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)			
	Basic Rate		9.00	
	Sub Total		9.00	
	Add 10% For Area weightage		0.90	
	Total Rate	Rate	9.90	Sqm
42	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)			
	Basic Rate		468.00	
	Sub Total		468.00	
	Add 10% For Area weightage		46.80	
	Total Rate	Rate	514.80	Nos

43	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p>												
	<p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF “structural fibers” of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p>												
	<p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer’s recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)</p>												
	<table border="1"> <tr> <td data-bbox="183 1176 917 1209">Basic Rate</td> <td data-bbox="917 1176 1109 1209"></td> <td data-bbox="1109 1176 1316 1209">2600.00</td> <td data-bbox="1316 1176 1532 1209"></td> </tr> <tr> <td data-bbox="183 1209 917 1243">Sub Total</td> <td data-bbox="917 1209 1109 1243"></td> <td data-bbox="1109 1209 1316 1243">2600.00</td> <td data-bbox="1316 1209 1532 1243"></td> </tr> <tr> <td data-bbox="183 1243 917 1276">Total Rate</td> <td data-bbox="917 1243 1109 1276">Rate</td> <td data-bbox="1109 1243 1316 1276">2600.00</td> <td data-bbox="1316 1243 1532 1276">Sqm</td> </tr> </table>	Basic Rate		2600.00		Sub Total		2600.00		Total Rate	Rate	2600.00	Sqm
Basic Rate		2600.00											
Sub Total		2600.00											
Total Rate	Rate	2600.00	Sqm										
44	<p>Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)</p>												
	<table border="1"> <tr> <td data-bbox="183 1433 917 1467">Basic Rate</td> <td data-bbox="917 1433 1109 1467"></td> <td data-bbox="1109 1433 1316 1467">130.00</td> <td data-bbox="1316 1433 1532 1467"></td> </tr> <tr> <td data-bbox="183 1467 917 1500">Sub Total</td> <td data-bbox="917 1467 1109 1500"></td> <td data-bbox="1109 1467 1316 1500">130.00</td> <td data-bbox="1316 1467 1532 1500"></td> </tr> <tr> <td data-bbox="183 1500 917 1534">Total Rate</td> <td data-bbox="917 1500 1109 1534">Rate</td> <td data-bbox="1109 1500 1316 1534">130.00</td> <td data-bbox="1316 1500 1532 1534">Rmt</td> </tr> </table>	Basic Rate		130.00		Sub Total		130.00		Total Rate	Rate	130.00	Rmt
Basic Rate		130.00											
Sub Total		130.00											
Total Rate	Rate	130.00	Rmt										

45	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)		
	Basic Rate		1400.00
	Sub Total		1400.00
	Total Rate	Rate	1400.00 Sqm
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)		
	Basic Rate		447.00
	Sub Total		447.00
	Add 10% For Area weightage		44.70
	Total Rate	Rate	491.70 Rmt
47	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)		
	Basic Rate		429.00
	Sub Total		429.00
	Add 10% For Area weightage		42.90
	Total Rate	Rate	471.90 Sqm

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.1 Grand Summary of E-Smart school - GPUC Balmatta

Sr. No.	Description	Cost In INR
1	E-Smart School - GPUC Balmatta	
a	Building & Compound wall works	13,388,842
b	Electrical Works	659,206
c	Plumbing Works	473,446
d	External Development - Softscape & Hardscape	3,863,382
	Total Cost	18,384,876

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.2 BOQ of E-Smart School - GPUC BALMATTA

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.74	28330.50	21,078
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	1485.60	5.50	8,171
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	52.21	3730.10	194,734
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	742.80	300.30	223,063
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	6318.35	112.20	708,919
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	977.40	374.00	365,548
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	2500.00	0.77	1,925
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	20000.00	0.39	7,700
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	323.39	67.10	21,699

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	1167.14	328.90	383,872
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	122.88	6490.00	797,491
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	728.00	797.50	580,580
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	160.35	6817.80	1,093,234
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	12.03	77860.20	936,366
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	546.53	289.30	158,111
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	1421.85	397.10	564,617
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	26.00	161.70	4,204

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	371.83	132.00	49,082
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	39.00	666.60	25,997
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EO)	Each	13.00	893.00	11,609
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	894.66	304.70	272,603
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	2356.33	1452.00	3,421,396
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	33.75	5280.00	178,200
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	323.83	1332.10	431,371
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	38.04	7914.50	301,070
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	314.92	753.50	237,291
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	314.92	753.50	237,291
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	5671.43	99.00	561,472

Sr .No.	Description	Unit	Quantity	Rate	Amount
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	904.33	447.70	404,869
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	138.60	111.10	15,398
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	449.88	61.60	27,713
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	449.88	55.00	24,744
33	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	1053.26	895.40	943,092
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	301.30	578.60	174,332
B	External Development - Softscape & Hardscape				
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	101.00	50.60	5,111
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	284.80	912.00	259,738
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	78.00	25.30	1,973

Sr .No.	Description	Unit	Quantity	Rate	Amount
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149	Sqm	78.00	101.20	7,894
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	1139.20	1446.50	1,647,853
40	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually alround the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	1736.00	9.90	17,186
41	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	284.00	514.80	146,203
42	1 Surface Preparation: Saw cutting further to construction and contol joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetry drive, equipped with a vaccum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.				
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF-STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m ³ to 12 kg/m ³ . TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)				

Sr .No.	Description	Unit	Quantity	Rate	Amount
	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)	Sqm	435.00	2600.00	1,131,000
43	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)	Rmt	103.00	130.00	13,390
44	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	435.00	1400.00	609,000
45	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)	Rmt	3.10	491.70	1,524
46	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)	Sqm	47.70	471.90	22,510
GRAND TOTAL					17,252,224

GST @12% on SOR & Non SOR 15,227,487 1827298
GST @18% on Market 1,753,390 315610

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - GPUC BALMATTA

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	10980.00	Area		10980.00
	Ded Building area	Sqm	-1	3540.00	Area		-3540.00
		Sqm			Total		7440.00
	Total Area in Ha	Ha					0.74
2	KSRRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall-Front side	Sqm	2	126.00		2.00	504.00
	Right side	Sqm	2	120.00		1.50	360.00
	Left side	Sqm	2	150.00		1.50	450.00
	Back side	Sqm	2	45.00		1.60	144.00
	Pillar	Sqm	6	2.30		2.00	27.60
	Total Quantity	Sqm			Total		1485.60
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall-Front side	Cum	1	126.00	0.23	2.00	57.96
	Right side	Cum	1	120.00	0.23	1.50	41.40
	Left side	Cum	1	150.00	0.23	1.50	51.75
	Back side	Cum	1	45.00	0.23	1.60	16.56
	Pillar	Cum	6	2.30	0.23	2.00	6.35
	Total Quantity	Cum			Total		174.02
	Total Quantity (30%)	Cum			Total		52.21
4	KSRRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall-Front side	Cum	2	126.00		2.00	504.00
	Right side	Cum	2	120.00		1.50	360.00
	Left side	Cum	2	150.00		1.50	450.00
	Back side	Cum	2	45.00		1.60	144.00
	Pillar	Cum	6	2.30		2.00	27.60
	Total Quantity	Cum			Total		1485.60
	Total Quantity (50%)	Cum			Total		742.80
5	KSRRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall-Front side	Sqm	2	126.00		2.00	504.00
	Right side	Sqm	2	120.00		1.50	360.00
	Left side	Sqm	2	150.00		1.50	450.00
	Back side	Sqm	2	45.00		1.60	144.00
	Pillar	Sqm	6	2.30		2.00	27.60
	B2 Block						
	GF-Outside Wall-Arch						
	Outer face Wall	Sqm	1	255.00		4.00	1020.00
	Inner wall Face	Sqm	1	245.00		4.00	980.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Deduction Arch						
A4		Sqm	-18	1.80		2.65	-85.86
A5		Sqm	-21	2.70		2.65	-150.26
A6		Sqm	-5	2.50		2.60	-32.50
A3		Sqm	-3	1.30		2.65	-10.34
A2		Sqm	-1	2.45		2.60	-6.37
O		Sqm	-3	0.60		1.50	-2.70
O1		Sqm	-4	0.60		2.45	-5.88
D1		Sqm	-2	0.90		2.10	-3.78
W		Sqm	-6	1.20		1.50	-10.80
W1		Sqm	-1	0.75		0.90	-0.68
	FF-Outside Wall						
Outer face Wall		Sqm	1	255.00		4.00	1020.00
Inner wall Face		Sqm	1	245.00		4.00	980.00
Deduction Arch							
Mesh Window Opening		Sqm	-2	4.95		1.75	-17.33
Mesh Window Opening		Sqm	-26	3.20		1.75	-145.60
Mesh Window Opening		Sqm	-4	3.55		1.75	-24.85
Mesh Window Opening		Sqm	-4	2.00		1.75	-14.00
Mesh Window Opening		Sqm	-2	5.00		1.75	-17.50
Mesh Window Opening		Sqm	-2	1.55		1.75	-5.43
Mesh Window Opening		Sqm	-2	3.00		1.75	-10.50
GW		Sqm	-6	1.50		1.50	-13.50
W3		Sqm	-12	1.15		1.16	-16.01
W7		Sqm	-2	1.20		1.20	-2.88
D3		Sqm	-2	1.30		2.40	-6.24
	Octagonal Shape						
Inner Wall		Sqm	1	35.00		4.00	140.00
Outer Wall		Sqm	1	35.00		4.00	140.00
Ded		Sqm	-6	1.30		0.90	-7.02
Ded		Sqm	-2	1.80		0.90	-3.24
Balcony Parapet wall		Sqm	2	5.00		0.85	8.50
		Sqm	1	6.50		0.85	5.53
Main Entry Wall		Sqm	2	5.00		4.00	40.00
		Sqm	1	6.50		4.00	26.00
Ded -A1		Sqm	-2	2.60		3.00	-15.60
Column		Sqm	12	1.30		10.00	156.00
	B5 Block						
Painting (External Wall)							
Class Room		Sqm	2	17.00		4.00	136.00
Class Room		Sqm	2	6.50		4.00	52.00
Deduction							
Window		Sqm	-10	1.22		1.12	-13.66
Door		Sqm	-2	1.20		1.90	-4.56
Kitchen		Sqm	2	3.60		4.00	28.80
		Sqm	1	4.00		4.00	16.00
Ded-W1		Sqm	-1	0.75		1.20	-0.90
Ded-D1		Sqm	-1	0.90		2.10	-1.89
Chejja -W1		Sqm	2	1.05	0.70		1.47
Chejja -W		Sqm	6	1.52	0.70		6.38
RCC Slab		Sqm	1	3.70	4.30		15.91
Slab Projection side		Sqm	1	11.70		0.15	1.76
Laterite Column		Sqm	7	0.66		2.40	11.09
	B6 Block						
Painting (External Wall)							
Outside wall		Sqm	1	75.00		5.40	405.00
	Deduction						
Window with mesh		Sqm	-16	1.36		1.96	-42.65
Door		Sqm	-6	1.35		2.73	-22.11
Top Mesh		Sqm	-9	1.35		0.60	-7.29
Chejja Painting		Sqm	13	1.66	0.60		12.95
		Sqm	13	2.86		0.10	3.72
	B7 Block						
Painting (External Wall)							
Outside wall		Sqm	1	40.00		4.00	160.00
	Deduction						
Window		Sqm	-4	1.18		1.50	-7.08
Door		Sqm	-4	1.20		2.05	-9.84
Chejja Painting		Sqm	4	1.50	0.60		3.60
		Sqm	4	2.70		0.10	1.08
	B15a Stage						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Painting (External Wall)						
	Outside area	Sqm	1	43.00		4.40	189.20
	Front Area	Sqm	1	13.60		1.40	19.04
	Deduction						
	Rolling Shutter	Sqm	-1	6.75		3.20	-21.60
	Door-D	Sqm	-2	1.20		2.10	-5.04
	Window-W	Sqm	-1	1.50		1.20	-1.80
		Sqm				Total	6318.35
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall-Front side	Sqm	1	126.00		2.00	252.00
	Left side	Sqm	1	150.00		1.50	225.00
	B2 Block	Sqm	1	255.00		1.20	306.00
	B5 Block	Sqm	1	47.00		1.20	56.40
	B6 Block	Sqm	1	75.00		1.20	90.00
	B7 Block	Sqm	1	40.00		1.20	48.00
		Sqm				Total	977.40
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	50	50.00			2500.00
		Cm				Total	2500.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, alga etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers wipers rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	20000				20000.00
		L				Total	20000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate 1st	Sqm	1	6.30		2.00	12.60
	Entrance Gate 2nd	Sqm	1	5.00		2.10	10.50
	Mesh Window	Sqm	42	3.32		1.75	244.13
	GW	Sqm	6	1.50		1.50	13.50
	Rolling shutter	Sqm	1	2.70		2.10	5.67
	Grill Window	Sqm	1	2.60		2.00	5.20
	Rolling shutter	Sqm	1	6.75		3.20	21.60
	MS Opening Paint	Sqm	1	3.35		2.10	7.04
	MS Opening Paint	Sqm	1	1.50		2.10	3.15
		Sqm				Total	323.39

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	B2 Block	Cum	1	255.00	0.45	0.30	34.43
	B5 Block	Cum	1	47.00	0.45	0.30	6.35
	B6 Block	Cum	1	75.00	0.45	0.30	10.13
	B7 Block	Cum	1	40.00	0.45	0.30	5.40
	Exit Area Driveway	Cum	1	32.86	3.50	0.70	80.50
	Exit Area Driveway	Cum	1	86.36	5.50	0.70	332.50
	Entry Area	Cum	1	19.00	4.00	0.70	53.20
	Entry Area	Cum	2	31.00	Area		62.00
	RCC Covered Drain						
	SWD - 0.45m Clear Width	Cum	1	337.78	0.95	1.01	324.10
	SWD - 0.60m Clear Width	Cum	1	157.72	1.10	1.34	231.61
	SWD Chamber	Cum	13	0.70	0.70	0.50	3.19
	UPVC Pipe	Cum	1	39.00	0.75	0.81	23.73
	Total Qty	Cum			Total		1167.14
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD - 0.45m Clear Width	Cum	1	337.78	0.95	0.10	32.09
	SWD - 0.60m Clear Width	Cum	1	157.72	1.10	0.10	17.35
	SWD Chamber	Cum	13	0.70	0.70	0.10	0.64
	Exit Area Driveway	Cum	1	32.86	3.50	0.10	11.50
	Exit Area Driveway	Cum	1	86.36	5.50	0.10	47.50
	Entry Area	Cum	1	19.00	4.00	0.10	7.60
	Entry Area	Cum	2	31.00	Area	0.10	6.20
		Cum			Total		122.88
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14						
	Exit Area Driveway	Sqm	1	32.86	3.50		115.00
	Exit Area Driveway	Sqm	1	86.36	5.50		475.00
	Entry Area	Sqm	1	19.00	4.00		76.00
	Entry Area	Sqm	2	31.00	Area		62.00
		Sqm			Total		728.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD - 0.45m Clear Width	Cum	1	337.78	0.65	0.15	32.93
	SWD - 0.60m Clear Width	Cum	1	157.72	0.80	0.15	18.93
	SWD Chamber	Cum	13	0.50	0.50	0.10	0.33
	Side wall						
	SWD - 0.45m Clear Width	Cum	2	337.78	0.10	0.61	41.21
	SWD - 0.60m Clear Width	Cum	2	157.72	0.10	0.935	29.49
	SWD Chamber	Cum	13	1.20	0.10	0.30	0.47
	Covered Slab						
	SWD - 0.45m Clear Width	Cum	1	337.78	0.45	0.15	22.80
	SWD - 0.60m Clear Width	Cum	1	157.72	0.60	0.15	14.19
		Cum					160.35
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	52.19	75		3914.25
	Side wall	Kg	1	71.17	75		5337.75
	Covered Slab	Kg	1	36.99	75		2774.25
		Kg					12026.25
		MT					12.03
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD - 0.45m Clear Width	Sqm	2	337.78		0.15	101.33
	SWD - 0.60m Clear Width	Sqm	2	157.72		0.15	47.32
	SWD Chamber	Sqm	13	2.00		0.10	2.60
	RCC Covered Drain						
	Slab Bottom						
	SWD - 0.45m Clear Width	Sqm	1	337.78	0.45		152.00
	SWD - 0.60m Clear Width	Sqm	1	157.72	0.60		94.63
	Slab side						
	SWD - 0.45m Clear Width	Sqm	2	337.78		0.15	101.33
	SWD - 0.60m Clear Width	Sqm	2	157.72		0.15	47.32
		Sqm					546.53
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD - 0.45m Clear Width	Sqm	4	337.78		0.61	824.18

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	SWD - 0.60m Clear Width	Sqm	4	157.72		0.935	589.87
	SWD Chamber	Sqm	13	2.00		0.30	7.80
		Sqm					1421.85
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	26.00				26.00
		Nos					26.00
18	KSRRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				582.63
	PCC Qty	Cum	-1				-50.08
	RCC Qty	Cum	-1				-160.35
	UPVC Pipe 110mm Dia	Cum	-1	39.00	0.01		-0.37
		Cum					371.83
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	39.00			39.00
		Rmt					39.00
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	13.00				13.00
		Each					13.00
21	KSRRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	B2 Block	Sqm	1	255.00		8.00	2040.00
	B5 Block	Sqm	1	47.00		4.00	188.00
	B6 Block	Sqm	1	75.00		5.40	405.00
	B7 Block	Sqm	1	40.00		4.00	160.00
	B15a Stage	Sqm	1	43.00		4.40	189.20
		Sqm				Total	2982.20
	Total 30% Quantity	Sqm				Total	894.66
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	B2 Block-GF (Office/Lab/Staff Room)						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Office Room	Sqm	1	7.10	7.50		53.25
	LAB Room	Sqm	1	6.40	7.50		48.00
	First Floor						
	Staff Room	Sqm	1	15.00	7.50		112.50
	Office room	Sqm	1	5.00	7.50		37.50
	Lab Room	Sqm	1	45.00	Area		45.00
	Kitchen - GF						
	Flooring	Sqm	1	3.15	4.85		15.28
	B5- Kitchen	Sqm	1	3.30	3.50		11.55
	B2 Block-GF (Inside Class Room/Common area)						
	Kumaradhara	Sqm	1	7.70	7.50		57.75
	Aganashini	Sqm	1	7.00	7.50		52.50
	Jana Raga	Sqm	1	6.40	7.50		48.00
	Netravati	Sqm	1	7.10	7.50		53.25
	Krishna	Sqm	1	7.00	7.50		52.50
	Nandini	Sqm	1	7.70	7.50		57.75
	Janaraga	Sqm	1	7.70	5.90		45.43
	Class Room	Sqm	1	7.50	8.60		64.50
	Common Area			Area			
	Front side	Sqm	1	223.50			223.50
	Back side	Sqm	1	286.00			286.00
	Right Side	Sqm	1	21.00			21.00
	Left side	Sqm	1	20.00			20.00
	Entry side	Sqm	1	185.00			185.00
	B2 Block-FF (Inside Class Room/Common area)						
	Yamuna	Sqm	1	7.70	7.50		57.75
	Godhavari	Sqm	1	7.00	7.50		52.50
	Narmada	Sqm	1	7.05	7.50		52.88
	Sindu	Sqm	1	6.50	7.50		48.75
	Kaveri	Sqm	1	7.70	7.50		57.75
	Common Area			Area			
	Front side	Sqm	1	84.00			84.00
	Front side	Sqm	1	12.00			12.00
	Front side	Sqm	1	99.00			99.00
	Back side	Sqm	1	110.00			110.00
	Back side	Sqm	1	31.00			31.00
	Back side	Sqm	1	124.00			124.00
	Right Side	Sqm	1	46.00			46.00
	Left side	Sqm	1	45.00			45.00
	B5						
	Flooring-GF						
	Class room	Sqm	1	8.15	5.95		48.49
	Class room	Sqm	1	8.15	5.95		48.49
	Skirting	Sqm	2	28.20		0.15	8.46
	Passage	Sqm	1	17.00	2.14		36.38
	Ded Column	Sqm	-7	0.33	0.33		-0.76
	B6						
	Flooring GF						
	Class Room	Sqm	1	7.09	5.50		39.00
	Class Room	Sqm	1	6.89	5.50		37.90
	Hall/Class Room	Sqm	1	15.73	5.95		93.59
	Skirting	Sqm	1	25.18		0.15	3.78
		Sqm	1	24.78		0.15	3.72
		Sqm	1	43.36		0.15	6.50
	Passage	Sqm	1	66.00	Area		66.00
	B7						
	Flooring GF						
	Class Room	Sqm	1	6.20	6.00		37.20
	Class Room	Sqm	1	6.70	6.00		40.20
	Skirting	Sqm	1	24.40		0.15	3.66
		Sqm	1	25.40		0.15	3.81
	Passage	Sqm	1	25.00	Area		25.00
	Block 15a - Stage						
	Stage Flooring	Sqm	1	13.15	4.00		52.60
		Sqm	1	2.50	3.30		8.25
	Boys Green Room	Sqm	1	5.10	3.05		15.56
	Girls Green Room	Sqm	1	5.10	3.05		15.56
	Front Area	Sqm	1	6.75	1.00		6.75
	Skirting						
	Stage Flooring	Sqm	2	17.15		0.15	5.15
		Sqm	2	5.80		0.15	1.74
	Boys Green Room	Sqm	2	8.15		0.15	2.45

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Girls Green Room	Sqm	2	8.15		0.15	2.45
	Block 15a - Stage	Sqm	1	34.30		0.15	5.15
	Stage Flooring	Sqm	1	20.60		0.15	3.09
	Skirting -FF						
		Sqm	1	11.60		0.15	1.74
	Boys Green Room	Sqm	1	16.30		0.15	2.45
	Girls Green Room	Sqm	1	16.30		0.15	2.45
	Flooring - GF	Sqm	1	40.40		0.15	6.06
	Skirting - SF						
	Room	Sqm	1	11.40		0.15	1.71
	Total Qty						2945.42
	Total Qty @ 80%	Sqm			Total		2356.33
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	B2 Block						
	FF-Principal Room	Sqm	1	7.50	4.50		33.75
		Sqm					33.75
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108						
	B2 Block						
	LAB Room	Sqm	1	6.40	7.50		48.00
	Lab Room	Sqm	1	45.00	Area		45.00
	FF-Saraswati Hall	Sqm	1	21.50	7.50		161.25
	FF-Principal chamber Balcony	Sqm	1	6.30	5.00		31.50
	Toilet - GF						
	Flooring	Sqm	1	2.50	4.50		11.25
	Kitchen - GF						
	Flooring	Sqm	1	3.15	4.85		15.28
	B5 Block						
	Kitchen	Sqm	1	3.30	3.50		11.55
	Total Qty						323.83
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	Main Staircase						
	Tread	Sqm	22	1.30	0.30		8.58
	Riser	Sqm	25	1.30		0.15	4.88
	B2						
	Entry Steps						
	Front side	Cum	1	3.30	0.30	0.15	0.15
		Cum	1	4.50	0.30	0.15	0.20
	Back side	Cum	1	3.15	0.30	0.15	0.14
		Cum	1	4.35	0.30	0.15	0.20
	Back side	Cum	4	3.30	0.30	0.15	0.59
		Cum	4	4.50	0.30	0.15	0.81
	Right side	Cum	1	3.30	0.30	0.15	0.15
		Cum	1	4.50	0.30	0.15	0.20
	B5						
	Entry Step-Tread	Sqm	1	4.48	0.30		1.34
		Sqm	1	5.08	0.30		1.52
	Entry Step-Riser	Sqm	1	4.48		0.23	1.03
		Sqm	1	5.08		0.23	1.17
	2nd Step Riser	Sqm	3	0.90		0.15	0.41
	Tread	Sqm	3	0.90		0.30	0.81

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	B6						
	Entry Step						
	Step 1 - Tread	Sqm	1	0.98	Area		0.98
	Step 1 -Tread	Sqm	1	1.15	Area		1.15
	Step 1 - Riser	Sqm	1	3.60		0.15	0.54
	Step 1 -Riser	Sqm	1	4.20		0.15	0.63
	Step 2 - Tread	Sqm	1	1.45	Area		1.45
	Step 2 -Tread	Sqm	1	1.80	Area		1.80
	Step 2 - Riser	Sqm	1	4.80		0.15	0.72
	Step 2 -Riser	Sqm	1	5.40		0.15	0.81
	Step 3 - Tread	Sqm	1	2.40	Area		2.40
	Step 3 -Tread	Sqm	1	2.80	Area		2.80
	Step 3 - Riser	Sqm	1	8.30		0.15	1.25
	Step 3 -Riser	Sqm	1	8.90		0.15	1.34
							38.04
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	B2 Block						
	D1	Sqm	2	0.90		2.10	3.78
	W	Sqm	6	1.20		1.50	10.80
	W1	Sqm	1	0.75		0.90	0.68
	W3	Sqm	12	1.15		1.16	16.01
	W7	Sqm	2	1.20		1.20	2.88
	D3	Sqm	2	1.30		2.40	6.24
	W2	Sqm	20	1.80		2.65	95.40
	D	Sqm	30	1.20		1.50	54.00
	W3	Sqm	6	1.15		1.16	8.00
	W6	Sqm	18	1.20		1.60	34.56
	D	Sqm	26	1.35		2.10	73.71
	D2	Sqm	3	0.90		2.10	5.67
	D3	Sqm	2	1.30		2.40	6.24
	W	Sqm	6	1.30		0.90	7.02
	W1	Sqm	2	1.80		0.90	3.24
	B5 Block						
	Window	Sqm	10	1.22		1.12	13.66
	Door	Sqm	2	1.20		1.90	4.56
	W1	Sqm	1	0.75		1.20	0.90
	D1	Sqm	1	0.90		2.10	1.89
	B6 Block						
	Window with mesh	Sqm	16	1.36		1.96	42.65
	Door	Sqm	6	1.35		2.73	22.11
	Top Mesh	Sqm	9	1.35		0.60	7.29
	B7 Block						
	Window with	Sqm	4	1.18		1.50	7.08
	Door	Sqm	4	1.20		2.05	9.84
	Block 15a - Stage						
	Door-D	Sqm	2	1.20		2.10	5.04
	Door-D1	Sqm	2	1.15		2.10	4.83
	Window-W	Sqm	1	1.50		1.20	1.80
	Total Qty						449.88
	Total 70% Quantity	Sqm			Total		314.92
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	B2 Block						
	D1	Sqm	2	0.90		2.10	3.78
	W	Sqm	6	1.20		1.50	10.80
	W1	Sqm	1	0.75		0.90	0.68
	W3	Sqm	12	1.15		1.16	16.01
	W7	Sqm	2	1.20		1.20	2.88
	D3	Sqm	2	1.30		2.40	6.24
	W2	Sqm	20	1.80		2.65	95.40
	D	Sqm	30	1.20		1.50	54.00
	W3	Sqm	6	1.15		1.16	8.00
	W6	Sqm	18	1.20		1.60	34.56
	D	Sqm	26	1.35		2.10	73.71
	D2	Sqm	3	0.90		2.10	5.67
	D3	Sqm	2	1.30		2.40	6.24
	W	Sqm	6	1.30		0.90	7.02
	W1	Sqm	2	1.80		0.90	3.24

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	B5 Block						
	Window	Sqm	10	1.22		1.12	13.66
	Door	Sqm	2	1.20		1.90	4.56
	W1	Sqm	1	0.75		1.20	0.90
	D1	Sqm	1	0.90		2.10	1.89
	B6 Block						
	Window with mesh	Sqm	16	1.36		1.96	42.65
	Door	Sqm	6	1.35		2.73	22.11
	Top Mesh	Sqm	9	1.35		0.60	7.29
	B7 Block						
	Window with	Sqm	4	1.18		1.50	7.08
	Door	Sqm	4	1.20		2.05	9.84
	Block 15a - Stage						
	Door-D	Sqm	2	1.20		2.10	5.04
	Door-D1	Sqm	2	1.15		2.10	4.83
	Window-W	Sqm	1	1.50		1.20	1.80
	Total Qty	Sqm					449.88
	Total 70% Quantity	Sqm			Total		314.92
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	B2 Block						
	GF-Building Wall						
	Outer face Wall	Sqm	1	245.00		4.00	980.00
	Inner wall Face	Sqm	4	30.00		4.00	480.00
	Inner wall Face	Sqm	2	15.00		4.00	120.00
	Inner wall Face	Sqm	1	70.00		4.00	280.00
	Partition Wall	Sqm	20	7.50		4.00	600.00
	Deduction Opeinings						
	W2	Sqm	-20	1.80		2.65	-95.40
	D	Sqm	-30	1.20		1.50	-54.00
	FF-Building Wall						
	Outer face Wall	Sqm	1	245.00		4.00	980.00
	Inner wall Face	Sqm	4	30.00		4.00	480.00
	Inner wall Face	Sqm	2	15.00		4.00	120.00
	Inner wall Face	Sqm	1	70.00		4.00	280.00
	Partition Wall	Sqm	18	7.50		4.00	540.00
	Deduction Opeinings						
	W3	Sqm	-6	1.15		1.16	-8.00
	W6	Sqm	-18	1.20		1.60	-34.56
	D	Sqm	-26	1.35		2.10	-73.71
	D2	Sqm	-3	0.90		2.10	-5.67
	D3	Sqm	-2	1.30		2.40	-6.24
	B5 Block						
	Painting (Internal Wall)						
	Class Room	Sqm	4	8.15		4.00	130.40
	Class Room	Sqm	4	5.95		4.00	95.20
	Deduction						
	Window	Sqm	-10	1.22		1.12	-13.66
	Door	Sqm	-2	1.20		1.90	-4.56
	Kitchen	Sqm	2	3.30		4.00	26.40
		Sqm	2	3.54		4.00	28.32
	Ded-W1	Sqm	-1	0.75		1.20	-0.90
	Ded-D1	Sqm	-1	0.90		2.10	-1.89
	B6 Block						
	Painting (Internal Wall)						
	Class Room	Sqm	2	7.09		5.00	70.90
	Class Room	Sqm	2	5.50		5.00	55.00
	Class Room	Sqm	2	6.90		5.00	69.00
	Class Room	Sqm	2	5.50		5.00	55.00
	Hall/Class room	Sqm	2	15.73		5.00	157.30
	Hall/Class room	Sqm	2	5.95		5.00	59.50
	Deduction						
	Window with mesh	Sqm	-16	1.36		1.96	-42.65
	Door	Sqm	-6	1.35		2.73	-22.11
	Top Mesh	Sqm	-9	1.35		0.60	-7.29
	B7 Block						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Painting (Internal Wall)						
	Class Room	Sqm	2	6.20		5.00	62.00
	Class Room	Sqm	2	6.00		5.00	60.00
	Class Room	Sqm	2	6.70		5.00	67.00
	Class Room	Sqm	2	6.00		5.00	60.00
	Deduction						
	Window with	Sqm	-4	1.18		1.50	-7.08
	Door	Sqm	-4	1.20		2.05	-9.84
	Block 15a - Stage						
	Painting (Internal Wall)						
	Stage	Sqm	1	13.15		3.00	39.45
		Sqm	1	6.40		3.00	19.20
		Sqm	2	4.00		3.00	24.00
		Sqm	2	3.30		3.00	19.80
	Boys Green Room	Sqm	2	5.10		3.00	30.60
		Sqm	2	3.05		3.00	18.30
	Girls Green Room	Sqm	2	5.10		3.00	30.60
		Sqm	2	3.05		3.00	18.30
	Deduction						
	Door-D	sqm	-2	1.20		2.10	-5.04
	Door-D1	sqm	-2	1.15		2.10	-4.83
	Window-W	sqm	-1	1.50		1.20	-1.80
	Staircase Hand rail	Sqm	4	3.60		1.00	14.40
	Total Quantity	Sqm				Total	5671.43
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	Total Area						
		Sqm					1507.22
		Sqm				Total	1507.22
	Total 60% Quantity	Sqm				Total	904.33
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	Total Area						
		Rmt	1	230.80			231.00
							231.00
	Total 60% Quantity	Rmt				Total	138.60
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	B2 Block						
	D1	Sqm	2	0.90		2.10	3.78
	W	Sqm	6	1.20		1.50	10.80
	W1	Sqm	1	0.75		0.90	0.68
	W3	Sqm	12	1.15		1.16	16.01
	W7	Sqm	2	1.20		1.20	2.88
	D3	Sqm	2	1.30		2.40	6.24
	W2	Sqm	20	1.80		2.65	95.40
	D	Sqm	30	1.20		1.50	54.00
	W3	Sqm	6	1.15		1.16	8.00
	W6	Sqm	18	1.20		1.60	34.56
	D	Sqm	26	1.35		2.10	73.71
	D2	Sqm	3	0.90		2.10	5.67
	D3	Sqm	2	1.30		2.40	6.24
	W	Sqm	6	1.30		0.90	7.02
	W1	Sqm	2	1.80		0.90	3.24
	B5 Block						
	Window	Sqm	10	1.22		1.12	13.66
	Door	Sqm	2	1.20		1.90	4.56
	W1	Sqm	1	0.75		1.20	0.90
	D1	Sqm	1	0.90		2.10	1.89
	B6 Block						
	Window with mesh	Sqm	16	1.36		1.96	42.65
	Door	Sqm	6	1.35		2.73	22.11
	Top Mesh	Sqm	9	1.35		0.60	7.29

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	B7 Block						
	Window with	Sqm	4	1.18		1.50	7.08
	Door	Sqm	4	1.20		2.05	9.84
	Block 15a - Stage						
	Door-D	Sqm	2	1.20		2.10	5.04
	Door-D1	Sqm	2	1.15		2.10	4.83
	Window-W	Sqm	1	1.50		1.20	1.80
	Total Qty						449.88
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Same as above SI No.22	Sqm	1		Total		449.88
33	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	Total Area B5 & B6	Sqm	1				450.38
	SI No.29 -40% Qty	Sqm	1				602.89
	Total Quantity	Sqm					1053.26
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	B2 Block	Sqm	1	255.00		0.30	76.50
	B5 Block	Sqm	1	47.00		0.30	14.10
	B6 Block	Sqm	1	75.00		0.30	22.50
	B7 Block	Sqm	1	40.00		0.30	12.00
	Terrace Floor Waterproofing	Sqm	1	52.00	Area		52.00
	RCC Roof Waterproofing	Sqm	1	13.80	9.00		124.20
		Sqm			Total		301.30
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Total Area	Rmt	1	101.00			101.00
		Rmt			Total		101.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Building & Basket Ball Ground Surrounding	Sqm	1	139.11	4.50		626.00
		Sqm	1	19.40	5.00		97.00
		Sqm	1	30.67	3.00		92.00
		Sqm	1	121.8	5.00		609.00
	Total Qty	Sqm					1424.00
	Total Qty @ 30%	Sqm			Total		284.80
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Badminton Court	Sqm	1.00	13.00	6.00		78.00
	Total Qty	Sqm					78.00
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Badminton Court	Sqm	1.00	13.00	6.00		78.00
		Sqm			Total		78.00
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,Sl.No.14.45.1)						
	Building & Basket Ball Ground Surrounding	Sqm	1.00				1424.00
	Total Qty @ 80%	Sqm			Total		1139.20
40	KSRRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRRB 18-19,Pg No.7,SI No.2.16)						
	Near Basket Ball Ground	Sqm	1.00	14.88	8.60		128.00
	Play ground Area	Sqm	1.00	36.82	17.00		626.00
	Backside Building	Sqm	1.00	182.86	3.50		640.00
	Near Exit Driveway Side	Sqm	1.00	44.29	3.50		155.00
	Near Playground	Sqm	1.00	26.71	7.00		187.00
		Sqm			Total		1736.00
41	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.4	0.06
	Total Qty	Rmt	1.00	128.00			128.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Total Qty	No			Total		284.00
42	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p>						
	<p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF “structural fibers” of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p>						
	<p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer’s recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)</p>						
	Basket Ball Ground	Sqm	1.00	29.00	15.00		435.00
	Total Qty	Sqm			Total		435.00
	CUTTING OF JOINTS						
43	<p>Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)</p>	Rmt	2.00	29.00			58.00
	Basket Ball Ground	Rmt	3.00	15.00			45.00
	Total Qty	Rmt			Total		103.00
	PARCKING COATING- DECKSHEILD SYSTEM- FLOWCRETE						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
44	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	1.00	29.00	15.00		435.00
	Total Qty	Sqm			Total		435.00
45	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19.Pg No.92,SI No.13.5)						
	Badminton Ground	Rmt	2.00	1.55			3.10
	Total Qty	Rmt			Total		3.10
46	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)						
	Exit driveway	Sqm	1.00	175.00	0.15		26.25
	Circular	Sqm	1.00	33.00	0.15		4.95
	Entry Pathway	Sqm	2.00	33.00	0.15		9.90
	Circular	Sqm	2.00	22.00	0.15		6.60
	Total Qty	Sqm			Total		47.70

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL

RATE ANALYSIS - GPUC Balmatta

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	

	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum

12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cernent concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volurne, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14			
	Basic Rate		725.00	
	Sub Total		725	
	add 10% For Area weightage		72.50	
	Total	Rate	797.50	Sqm
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestrals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm

17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229				
	Basic Rate			147.00	
	Sub Total			147	
	add 10% For Area weightage			14.70	
	Total	Rate		161.70	Nos
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7				
	Basic Rate			120.00	
	Sub Total			120	
	add 10% For Area weightage			12.00	
	Total	Rate		132.00	Cum
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia				
	Basic Rate			606.00	
	Sub Total			606	
	add 10% For Area weightage			60.60	
	Total	Rate		666.60	Rmt
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)				
	Basic Rate			893.00	
	Sub Total			893	
	Total	Rate		893.00	Each
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133				
	Basic Rate			277	
	Sub Total			277	
	Add 10% For Area weightage			27.70	
	Total	Rate		304.70	Sqm
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).				
	Basic Rate			1320.00	
	Sub Total			1320	
	Add 10% For Area weightage			132.00	
	Total	Rate		1452.00	Sqm

23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate		90.00	
	Sub Total		90	
	Add 10% For Area weightage for Labour		9.00	
	Total	Rate	99.00	Sqm
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267			
	Basic Rate		407.00	
	Sub Total		407	

	Add 10% For Area weightage		40.70	
	Total Rate	Rate	447.70	Sqm
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267			
	Basic rate		101.00	
	Sub Total		101	
	Add 10% For area weightage (Mangalore City)		10.10	
	Total Rate	Rate	111.10	Rmt
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123			
	Basic Rate		56.00	
	Sub Total		56	
	Add 10% For Area weightage		5.60	
	Total Rate	Rate	61.60	Sqm
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123			
	Basic Rate		50.00	
	Sub Total		50	
	Add 10% For Area weightage		5.00	
	Total Rate	Rate	55.00	Sqm
33	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11			
	Basic Rate		814.00	
	Sub Total		814.00	
	Add 10% For Area weightage		81.40	
	Total Rate	Rate	895.40	Sqm
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			

	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
40	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)			
	Basic Rate		9.00	
	Sub Total		9.00	
	Add 10% For Area weightage		0.90	
	Total Rate	Rate	9.90	Sqm

41	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)			
	Basic Rate		468.00	
	Sub Total		468.00	
	Add 10% For Area weightage		46.80	
	Total Rate	Rate	514.80	Nos
42	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p> <p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p> <p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)</p>			
	Basic Rate		2600.00	
	Sub Total		2600.00	
	Total Rate	Rate	2600.00	Sqm
43	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)			
	Basic Rate		130.00	
	Sub Total		130.00	
	Total Rate	Rate	130.00	Rmt

44	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)			
	Basic Rate		1400.00	
	Sub Total		1400.00	
	Total Rate	Rate	1400.00	Sqm
45	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)			
	Basic Rate		447.00	
	Sub Total		447.00	
	Add 10% For Area weightage		44.70	
	Total Rate	Rate	491.70	Rmt
46	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)			
	Basic Rate		429.00	
	Sub Total		429.00	
	Add 10% For Area weightage		42.90	
	Total Rate	Rate	471.90	Sqm

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY

1.1 Grand Summary of E-Smart school - Govt PRACTICING SCHOOL

Sr. No.	Description	Cost In INR
1	E-Smart School - Govt Practicing School	
a	Building & Compound wall works	7,779,419
b	Electrical Works	727,483
c	Plumbing Works	184,976
d	External Development - Softscape & Hardscape	2,083,984
	Total Cost	10,775,862

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.2 BOQ of E-Smart School - Govt Practicing School

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.27	28330.50	7,604
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	1595.72	5.50	8,776
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	148.38	3730.10	553,472
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	918.62	300.30	275,862
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	2277.31	112.20	255,514
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	252.65	374.00	94,491
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	600.00	0.77	462
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	10000.00	0.39	3,850
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	65.38	67.10	4,387

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	887.84	328.90	292,011
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	80.18	6490.00	520,368
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	296.00	797.50	236,060
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	170.93	6817.80	1,165,367
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	12.82	77860.20	998,148
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	552.54	289.30	159,850
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	1681.61	397.10	667,767
17	KSRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	38.00	161.70	6,145

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	435.76	132.00	57,520
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	57.00	666.60	37,996
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EO)	Each	19.00	893.00	16,967
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	324.46	304.70	98,863
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	241.54	1452.00	350,716
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	43.22	5280.00	228,202
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	259.73	1332.10	345,986
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	58.21	7914.50	460,703
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	39.90	753.50	30,065
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	39.90	753.50	30,065

Sr .No.	Description	Unit	Quantity	Rate	Amount
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	462.00	99.00	45,738
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	404.76	447.70	181,211
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	269.84	895.40	241,615
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	404.76	111.10	44,969
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	729.93	61.60	44,964
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	729.93	55.00	40,146
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Cum	105.58	578.60	61,089
35	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resitant. Welding shall confirm to latest structural welding code. Quality shall be on various parametres like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineris for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.40, SI.No. 7.29 of PWD SR 2016-17)	Kg	1381.25	122.10	168,651

Sr .No.	Description	Unit	Quantity	Rate	Amount
36	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.51, SI.No. 8.29 of PWD SR 2018-19)	Sqm	55.25	793.10	43,819
B	External Development - Softscape & Hardscape				
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	185.80	912.00	169,450
38	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	398.50	25.30	10,082
39	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149	Sqm	398.50	101.20	40,328
40	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	743.20	1446.50	1,075,039
41	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	503.00	9.90	4,980
42	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	238.00	514.80	122,522

Sr .No.	Description	Unit	Quantity	Rate	Amount
43	<p>1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only.</p> <p>2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.</p>				
	<p>3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF-STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)</p>				
	<p>Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)</p>	Sqm	162.00	2600.00	421,200
44	<p>Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)</p>	Rmt	81.00	130.00	10,530

Sr .No.	Description	Unit	Quantity	Rate	Amount
45	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	162.00	1400.00	226,800
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)	Rmt	6.21	491.70	3,053
GRAND TOTAL					9,863,403

GST @12% on SOR & Non SOR 9,018,456 1082215
GST @18% on Market 658,530 118535

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - Govt Practicing School

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	6346.00	Area		6346.00
	Ded	Sqm	-1	3662.00	Area		-3662.00
		Sqm					2684.00
		Ha					0.268
2	KSRSB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	78.50		2.50	392.50
	Right side	Sqm	2	62.60		2.00	250.40
	Left side	Sqm	2	81.40		2.50	407.00
	Back side	Sqm	2	106.70		2.50	533.50
	Pillar	Sqm	2	2.80		2.20	12.32
		Sqm			Total		1595.72
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	31.40	0.23	2.50	18.06
	Right side	Cum	1	25.04	0.23	2.00	11.52
	Left side	Cum	1	32.56	0.23	2.50	18.72
	Back side	Cum	1	42.68	0.23	2.50	24.54
	Pillar	Cum	2	1.12	0.23	2.20	1.13
	B11 Block -Outside wall	Cum	1	42.80	0.23	4.48	44.05
	Ampitheter	Cum	1	22.00	0.46	0.60	6.07
		Cum	1	24.00	0.46	0.90	9.94
		Cum	1	26.00	0.46	1.20	14.35
	Total Quantity	Cum			Total		148.38
4	KSRSB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	31.40		2.50	157.00
	Right side	Sqm	2	25.04		2.00	100.16
	Left side	Sqm	2	32.56		2.50	162.80
	Back side	Sqm	2	42.68		2.50	213.40
	Pillar	Sqm	2	1.12		2.20	4.93
	B11 Block -Outside wall	Sqm	1	42.80		4.48	191.53
	Ampitheter	Sqm	2	22.00		0.30	13.20
		Sqm	2	24.00		0.60	28.80
		Sqm	2	26.00		0.90	46.80
	Total Quantity	Sqm			Total		918.62
5	KSRSB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	78.50		2.50	392.50
	Right side	Sqm	2	62.60		2.00	250.40
	Left side	Sqm	2	81.40		2.50	407.00
	Back side	Sqm	2	106.70		2.50	533.50
	Pillar	Sqm	2	2.80		2.20	12.32
	B11 Block						
	Outside Building	Sqm	1	107.00		4.48	478.83

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Ded						
	D	Sqm	-1	0.90		2.10	-1.89
	D1	Sqm	-8	1.20		1.90	-18.24
	W	Sqm	-12	1.20		1.45	-20.88
	W1	Sqm	-4	0.86		1.16	-3.99
	GW	Sqm	-2	0.90		0.90	-1.62
	GW1	Sqm	-1	1.20		1.20	-1.44
	GW/V	Sqm	-3	0.90		0.30	-0.81
	Chejja						
	W	Sqm	10	1.50	0.6		9.00
	W1	Sqm	8	1.16	0.6		5.57
	GW	Sqm	2	1.20	0.6		1.44
	GW1	Sqm	2	1.50	0.6		1.80
	GW/V	Sqm	6	1.20	0.6		4.32
	B13 - Stage	Sqm	2	14.95		0.75	22.43
	Wall	Sqm	4	3.20		1.50	19.20
		Sqm	2	8.00		1.50	24.00
	B12 Toilet Block						
	Outside Building	Sqm	2	16.00		2.50	80.00
	Ded						
	Door - D	Sqm	-3	0.75		2.10	-4.73
	Ventilator- V	Sqm	-5	0.20		0.20	-0.20
	Ampitheter	Sqm	2	22.00		0.30	13.20
		Sqm	2	24.00		0.60	28.80
		Sqm	2	26.00		0.90	46.80
		Sqm				Total	2277.31
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	78.5		2.50	196.25
	B11 Block Front wall	Sqm	1	47.00		1.20	56.40
		Sqm				Total	252.65
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	12	50.00			600.00
		Cm				Total	600.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	10000				10000.00
		L				Total	10000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	5.10		2.20	11.22
	B11 Block						
	GW	Sqm	2	0.90		0.90	1.62
	GW1	Sqm	1	1.20		1.20	1.44
	GW/V	Sqm	3	0.90		0.30	0.81
	B13 - Stage Steel Pole	Sqm	8	2.51		2.50	50.29
		Sqm				Total	65.38

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	B11 Block- Waterproofing	Cum	1	107.00	0.30	0.45	14.45
	B13 - Stage Side waterproofing	Cum	1	30.00	0.30	0.45	4.05
	B12 - Toilet Block Watreproofing	Cum	1	32.10	0.30	0.45	4.33
	Entry Driveway	Cum	1	23.20	10.00	0.70	162.40
	Parking	Cum	1	9.60	2.50	0.70	16.80
	Parking	Cum	1	20.00	2.00	0.70	28.00
	RCC Covered Drain						
	SWD-0.3m Clear Width	Cum	1	233.70	0.80	1.00	186.96
	SWD - 0.45m Clear Width	Cum	1	54.03	0.95	1.21	62.11
	SWD - 0.60m Clear Width	Cum	1	234.74	1.10	1.40	360.21
	SWD Chamber	Cum	19	0.70	0.70	0.50	4.66
	UPVC Pipe	Cum	1	57.00	0.75	1.03	43.87
		Cum			Total		887.84
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggretes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD-0.3m Clear Width	Cum	1	233.70	0.80	0.10	18.70
	SWD - 0.45m Clear Width	Cum	1	54.03	0.95	0.10	5.13
	SWD - 0.60m Clear Width	Cum	1	234.74	1.10	0.10	25.82
	SWD Chamber	Cum	19	0.70	0.70	0.10	0.93
	Entry Driveway	Cum	1	23.20	10.00	0.10	23.20
	Parking	Cum	1	9.60	2.50	0.10	2.40
	Parking	Cum	1	20.00	2.00	0.10	4.00
					Total		80.18
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cernent concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14						
	Entry Driveway	Sqm	1	23.20	10.00		232.00
	Parking	Sqm	1	9.60	2.50		24.00
	Parking	Sqm	1	20.00	2.00		40.00
		Sqm			Total		296.00
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	SWD-0.3m Clear Width	Cum	1	233.70	0.50	0.15	17.53
	SWD - 0.45m Clear Width	Cum	1	54.03	0.65	0.15	5.27
	SWD - 0.60m Clear Width	Cum	1	234.74	0.80	0.15	28.17
	SWD Chamber	Cum	19	0.50	0.50	0.10	0.48
	Side wall						
	SWD-0.3m Clear Width	Cum	2	233.70	0.10	0.6	28.04
	SWD - 0.45m Clear Width	Cum	2	54.03	0.10	0.81	8.75
	SWD - 0.60m Clear Width	Cum	2	234.74	0.10	0.995	46.71
	SWD Chamber	Cum	19	1.20	0.10	0.30	0.68
	Covered Slab						
	SWD-0.3m Clear Width	Cum	1	233.70	0.30	0.15	10.52
	SWD - 0.45m Clear Width	Cum	1	54.03	0.45	0.15	3.65
	SWD - 0.60m Clear Width	Cum	1	234.74	0.60	0.15	21.13
		Cum					170.93
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						Kg/Cum
	RCC Covered Drain						
	Raft	Kg	1	51.45	75		3858.75
	Side wall	Kg	1	84.18	75		6313.50
	Covered Slab	Kg	1	35.30	75		2647.50
		Kg					12819.75
		MT					12.82
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD-0.3m Clear Width	Sqm	2	233.70		0.15	70.11
	SWD - 0.45m Clear Width	Sqm	2	54.03		0.15	16.21
	SWD - 0.60m Clear Width	Sqm	2	234.74		0.15	70.42
	SWD Chamber	Sqm	19	2.00		0.10	3.80
	RCC Covered Drain						
	Slab Bottom						
	SWD-0.3m Clear Width	Sqm	1	233.70	0.30		70.11
	SWD - 0.45m Clear Width	Sqm	1	54.03	0.45		24.31
	SWD - 0.60m Clear Width	Sqm	1	234.74	0.60		140.84
	Slab side						
	SWD-0.3m Clear Width	Sqm	2	233.70		0.15	70.11
	SWD - 0.45m Clear Width	Sqm	2	54.03		0.15	16.21
	SWD - 0.60m Clear Width	Sqm	2	234.74		0.15	70.42
		Sqm					552.54
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD-0.3m Clear Width	Sqm	4	233.70		0.6	560.88
	SWD - 0.45m Clear Width	Sqm	4	54.03		0.81	175.06
	SWD - 0.60m Clear Width	Sqm	4	234.74		0.995	934.27
	SWD Chamber	Sqm	19	2.00		0.30	11.40
		Sqm					1681.61
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	38.00				38.00
		Nos					38.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				657.81
	PCC Qty	Cum	-1				-50.58
	RCC Qty	Cum	-1				-170.93
	UPVC Pipe 110mm Dia	Cum	-1	57.00	0.01		-0.54
		Cum					435.76
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	57.00			57.00
		Rmt					57.00
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)						
	SWD Chamber	Each	19.00				19.00
		Each					19.00
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	B11 Block Outside Building	Sqm	1	107.00		4.48	478.83
	B11 Block inside Building	Sqm	1				462.00
	B13 Stage	Sqm	1				65.63
	B12 - Toilet Block	Sqm	1				75.07
		Sqm				Total	1081.53
	Total 30% Quantity	Sqm				Total	324.46
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	B11 Block						
	Staff Room	Sqm	1	6.20	5.73		35.53
	Skirting	Sqm	1	23.86		0.15	3.58
	B11 Block						
	Anganavadi	Sqm	1	3.30	6.30		20.79
	Skirting	Sqm	1	19.20		0.15	2.88
	Class Room	Sqm	2	6.23	5.73		71.40
	Skirting	Sqm	1	23.92		0.15	3.59
	Passage	Sqm	1	43.00	1.50		64.50
	Skirting	Sqm	1	43.00		0.15	6.45
	Passage	Sqm	1	1.40	0.95		1.33
	Skirting	Sqm	1	1.40		0.15	0.21
	B6 Block						
	Corridor	Sqm	1	15.26	1.90		28.99
	Skirting	Sqm	1	15.26		0.15	2.29
	Total Qty	Sqm				Total	241.54
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	B11 Block						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	HM Chamber	Sqm	1	6.80	5.80		39.44
	Skirting	Sqm	1	25.20		0.15	3.78
	Total Qty	Sqm			Total		43.22
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108						
	B11 Block						
	Hall	Sqm	1	16.40	5.75		94.30
	Skirting	Sqm	1	44.30		0.15	6.65
	B13 Stage	Sqm	1	8.00	6.25		50.00
	B12 Toilet Block	Sqm	1	2.50	6.05		15.13
		Sqm	1	2.35	1.30		3.06
		Sqm	1	2.35	1.10		2.59
		Sqm	1	6.60	2.80		18.48
	Dadoing	Sqm	1	17.10		1.50	25.65
		Sqm	1	7.30		1.50	10.95
		Sqm	1	6.90		1.50	10.35
		Sqm	1	18.80		1.50	28.20
	Ded Door	Sqm	-5	0.75		1.50	-5.63
	Total Qty	Sqm			Total		259.73
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	B11 Block						
	Entry Step- Tread	Sqm	10	3.00	0.30		9.00
	Entry Step- Riser	Sqm	15	3.00		0.15	6.75
	Ramp	Sqm	1	3.80	0.95		3.61
	B13 Block Entry Step						
	Tread	Sqm	3	1.90	0.30		1.71
	Riser	Sqm	4	1.90		0.15	1.14
	Ampitheter	Sqm	1	22.00	0.50		11.00
		Sqm	1	24.00	0.50		12.00
		Sqm	1	26.00	0.50		13.00
	Total Qty	Sqm			Total		58.21
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	B11 Block						
	D	Sqm	1	0.90		2.10	2.00
	D1	Sqm	8	1.20		1.90	18.00
	W	Sqm	12	1.20		1.45	21.00
	W1	Sqm	4	0.86		1.16	4.00
	GW	Sqm	2	0.90		0.90	2.00
	GW1	Sqm	1	1.20		1.20	1.00
	GW/V	Sqm	3	0.90		0.30	1.00
	B12 Block						
	Door - D	Sqm	5	0.75		2.10	8.00
		Sqm			Total		57.00
	Total 70% Quantity	Sqm			Total		39.90
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	B11 Block						
	D	Sqm	1	0.90		2.10	2.00
	D1	Sqm	8	1.20		1.90	18.00
	W	Sqm	12	1.20		1.45	21.00
	W1	Sqm	4	0.86		1.16	4.00
	GW	Sqm	2	0.90		0.90	2.00
	GW1	Sqm	1	1.20		1.20	1.00
	GW/V	Sqm	3	0.90		0.30	1.00
	B12 Block						
	Door - D	Sqm	5	0.75		2.10	8.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
							57.00
	Total 70% Quantity	Sqm			Total		39.90
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Main building inside wall						
	B11 Block						
	Anganavadi	Sqm	2	9.60		3.00	58.00
	Staff Room	Sqm	2	12.00		3.00	72.00
	Class Room	Sqm	4	12.10		3.00	145.00
	Hall	Sqm	2	22.20		3.00	133.00
	HM Room	Sqm	2	12.6		3.00	76.00
	Ded						
	D	Sqm	-1	0.90		2.10	-2.00
	D1	Sqm	-8	1.20		1.90	-18.00
	W	Sqm	-12	1.20		1.45	-21.00
	W1	Sqm	-4	0.86		1.16	-4.00
	GW	Sqm	-2	0.90		0.90	-2.00
	GW1	Sqm	-1	1.20		1.20	-1.00
	GW/V	Sqm	-3	0.90		0.30	-1.00
	B12 Toilet Block						
	Toilet	Sqm	2	8.6		0.70	12.00
	Toilet	Sqm	2	3.65		0.70	5.00
	Toilet	Sqm	2	3.45		0.70	5.00
	Toilet	Sqm	2	9.4		0.70	13.00
	Ded						
	Door	Sqm	-5	0.75		2.10	-8.00
	Ventilator	Sqm	-5	0.20		0.20	0.00
	Total Quantity	Sqm			Total		462.00
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	B11 Block	Sqm	1				674.60
		Sqm			Total		674.60
	Total 60% Quantity	Sqm					404.76
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	B11 Block	Sqm	1				674.60
		Sqm			Total		674.60
	Total 40% Quantity	Sqm					269.84
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	B11 Block	Rmt	1	65.60			65.60
		Rmt			Total		65.60
	Total 65% Quantity	Rmt					42.64
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	B11 Block						
	Wooden Pillar	Sqm	14	0.20		2.00	5.60
	D	Sqm	1	0.90		2.10	1.89
	D1	Sqm	8	1.20		1.90	18.24
	W	Sqm	12	1.20		1.45	20.88
	W1	Sqm	4	0.86		1.16	3.99
	Rafters and reepers	Sqm	1				674.60

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	B12 Block						
	Door - D	Sqm	3	0.75		2.10	4.73
		Sqm			Total		729.93
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	B11 Block						
	Wooden Pillar	Sqm	14	0.2		2.0	5.60
	D	Sqm	1	0.9		2.10	1.89
	D1	Sqm	8	1.2		1.90	18.24
	W	Sqm	12	1.2		1.45	20.88
	W1	Sqm	4	0.86		1.16	3.99
	Rafters and reepers	Sqm	1				674.60
	B12 Block						
	Door - D	Sqm	3	0.75		2.10	4.73
		Sqm			Total		729.93
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	B11 Block Plinth	Sqm	1	107.00		0.45	48.15
	B13 Block Plinth	Sqm	1	30.00		0.45	13.50
	B12 Toilet Block RCC Slab	Sqm	1	12.55	3.50		43.93
		Sqm			Total		105.58
34	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resisitant. Welding shall confirm to latest structural welding code. Quality shall be on various parametres like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)					Kg/Sqm	
	B13 Stage	Sqm	1.00	8.50	6.5	25	1381.25
		Sqm			Total		1381.25
35	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cast of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.51, SI.No. 8.29 of PWD SR 2018-19)						
	B13 Stage	Sqm	1.00	8.50	6.5		55.25
		Sqm			Total		55.25

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
36	Providing & laying driveway or outdoor tiles 600x600 mm16mm thickness with water absorption less than 0.08% and confirming to IS; 15622, of approved brand & manufacturer, in all colours and shade, laid , including grouting of joints .(pavement for grouching of joints to be made separately) or equivalent in 20 mm thick bed of cement coarse sand mortar 1:3 with neat cement slurry between joints and over the base in floors, treads of steps and landings, complete with all respects. MAKE- PAVIT,RESTILE, JONSON (Market Rate)						
	Total Area	Sqm	1.00	235.00	Area		235.00
	Parking	Sqm	1.00	9.30	2.50		23.25
	Parking	Sqm	1.00	17.00	2.50		42.50
	Total Qty	Sqm					300.75
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	School Building Surrounding	Sqm	1.00	100.00	1.50		150.00
	Near Entry Driveway	Sqm	1.00	9.60	7.50		72.00
	School Bed Building Surrounding	Sqm	1.00	64.83	2.90		188.00
	Near Volleyball Court	Sqm	1.00	44.00	1.50		66.00
	Near Library Room	Sqm	1.00	89.33	1.50		134.00
	Backside Building Bed	Sqm	1.00	32.67	1.50		49.00
	Near Badminton Court	Sqm	1.00	6.67	3.30		22.00
	Near Stage side	Sqm	1.00	55.33	3.00		166.00
	Near Entry Side	Sqm	1.00	21.33	1.50		32.00
	Near Hostel Side	Sqm	1.00	33.33	1.50		50.00
	Total Qty-100%	Sqm					929.00
	Total Qty @ 20%	Sqm			Total		185.80
38	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Badminton Court	Sqm	1.00	13.00	6.50		84.50
	Near Stage	Sqm	1.00	166.00	Area		166.00
	Near Badminton Court	Sqm	1.00	148.00	Area		148.00
		Sqm			Total		398.50
39	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Badminton Court	Sqm	1.00	13.00	6.50		84.50
	Near Stage	Sqm	1.00	166.00	Area		166.00
	Near Badminton Court	Sqm	1.00	148.00	Area		148.00
		Sqm			Total		398.50
40	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Total Qty SI No.37	Sqm	1.00				929.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Total Qty @ 80%	Sqm			Total		743.20
41	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)						
	In Entry Side Area	Sqm	1.00	25.83	6.00		155.00
	Near Stage	Sqm	1.00	13.00	6.00		78.00
	Near Badminton	Sqm	1.00	38.57	7.00		270.00
	Total Qty	Sqm			Total		503.00
42	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.4	0.06
	Total Qty	Rmt	1.00	107.00			107.00
	Total Qty	No			Total		238.00
43	1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vacuum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.						
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m ³ to 12 kg/m ³ . TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)						
	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)						
	Volleyball Ground	Sqm	1.00	18.00	9.00		162.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Total Qty	Sqm			Total		162.00
	CUTTING OF JOINTS						
44	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheild putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)	Rmt	2.00	18.00			36.00
	Volleyball Ground	Rmt	5.00	9.00			45.00
	Total Qty	Rmt			Total		81.00
	PARCKING COATING- DECKSHEILD SYSTEM- FLOWCRETE						
45	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	1.00	18.00	9.00		162.00
	Total Qty	Sqm			Total		162.00
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)						
	Badminton Ground	Rmt	2.00	1.55			3.10
	Volleyball Ground	Rmt	2.00	1.55			3.11
	Total Qty	Rmt			Total		6.21

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - Govt Practicing School

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	

	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum

12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cernent concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volurne, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14			
	Basic Rate		725.00	
	Sub Total		725	
	add 10% For Area weightage		72.50	
	Total	Rate	797.50	Sqm
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestrals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm

17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2			
	do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm

23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate			4800.00
	Sub Total			4800
	Add 10% For Area weightage			480.00
	Total	Rate		5280.00 Sqm
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate			1211.00
	Sub Total			1211
	Add 10% For Area weightage			121.10
	Total	Rate		1332.10 Sqm
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate			7195.00
	Sub Total			7195
	Add 10% For Area weightage			719.50
	Total	Rate		7914.50 Sqm
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate			685.00
	Sub Total			685
	Add 10% For Area weightage			68.50
	Total	Rate		753.50 Sqm
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate			685.00
	Sub Total			685
	Add 10% For Area weightage for Labour			68.50
	Total	Rate		753.50 Sqm
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate			90.00
	Sub Total			90
	Add 10% For Area weightage for Labour			9.00
	Total	Rate		99.00 Sqm
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267			
	Basic Rate			407.00
	Sub Total			407
	Add 10% For Area weightage			40.70

	Total Rate	Rate	447.70	Sqm
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11			
	Basic Rate		814.00	
	Sub Total		814	
	Add 10% For Area weightage		81.40	
	Total Rate	Rate	895.40	Sqm
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267			
	Baisc rate		101.00	
	Sub Total		101	
	Add 10% For area weightage (Mangalore City)		10.10	
	Total Rate	Rate	111.10	Rmt
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123			
	Basic Rate		56.00	
	Sub Total		56	
	Add 10% For Area weightage		5.60	
	Total Rate	Rate	61.60	Sqm
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123			
	Basic Rate		50.00	
	Sub Total		50	
	Add 10% For Area weightage		5.00	
	Total Rate	Rate	55.00	Sqm
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm

35	Fabrication supplying and erecting M.S. Tubular Truss of all spans as per approved drawing and design with prefabricated steel applications using quality material and are durable, reliable and corrosion and abrasion resistant. Welding shall conform to latest structural welding code. Quality shall be on various parameters like shape, size, design gauge and polish. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate. The work includes cutting, straightening, placing in position of M.S pipes and welding wherever necessary, and applying one coat of red oxide primer coat to all the members including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification (P.No.43, SI.No. 7.29 of PWD SR 2018-19)			
	Basic Rate		111.00	
	Sub Total		111.00	
	Add 10% For Area weightage		11.10	
	Total Rate	Rate	122.10	Kg
36	Providing and fixing of pre pigmented extruded orange cement roof tiles of size 420mm x 330mm with necessary specials such as Ridges, Barges and Nails etc. including cost of providing PVC (6.00kgs/sq cm) gutters of min 6" radius and down water pipes of 4" dia as per the roof design on EXISTING MS/WOODEN ROOF or TRUSS. Including cost of materials, scaffoldings, labour etc., complete as per specifications. (P.No.51, SI.No. 8.29 of PWD SR 2018-19)			
	Basic Rate		721.00	
	Sub Total		721.00	
	Add 10% For Area weightage		72.10	
	Total Rate	Rate	793.10	Sqm
37	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour, using cement and coarse sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm
38	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19, SI No.19.82, Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm
39	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19, SI No.19.83, Pg No149			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm

40	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)				
	Basic Rate			1315.00	
	Sub Total			1315.00	
	Add 10% For Area weightage			131.50	
	Total Rate	Rate		1446.50	Sqm
41	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)				
	Basic Rate			9.00	
	Sub Total			9.00	
	Add 10% For Area weightage			0.90	
	Total Rate	Rate		9.90	Sqm
42	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)				
	Basic Rate			468.00	
	Sub Total			468.00	
	Add 10% For Area weightage			46.80	
	Total Rate	Rate		514.80	Nos
43	1 Surface Preparation: Saw cutting further to construction and contol joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vaccum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.				
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m ³ to 12 kg/m ³ . TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)				

	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)			
	Basic Rate		2600.00	
	Sub Total		2600.00	
	Total Rate	Rate	2600.00	Sqm
44	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)			
	Basic Rate		130.00	
	Sub Total		130.00	
	Total Rate	Rate	130.00	Rmt
45	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light stability is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)			
	Basic Rate		1400.00	
	Sub Total		1400.00	
	Total Rate	Rate	1400.00	Sqm
46	KSRB13-1.1 : Providing and fixing to wall, ceiling and floor galvanised I mild steel tube nominal bore with fittings (medium grade weight 1.27 kglmtr) B class including cost of all materials, labour charges, HOM and testing complete as per specifications. Specification No.KBS 13.2.14 I 13.8 do- 40 mm dia (KSRB 18-19,Pg No.92,SI No.13.5)			
	Basic Rate		447.00	
	Sub Total		447.00	
	Add 10% For Area weightage		44.70	
	Total Rate	Rate	491.70	Rmt

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.1 Grand Summary of E-Smart School - Basthigarden

Sr. No.	Description	Cost In INR
1	E-Smart School - Basthigarden	
a	Building & Compound wall works	4,247,550
b	Electrical Works	350,533
c	Plumbing Works	105,903
d	External Development - Softscape & Hardscape	585,999
	Total Cost	5,289,985

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.2 BOQ of E-Smart School - BASTHIGARDEN

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.13	28330.50	3,640
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	792.20	5.50	4,357
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	36.88	3730.10	137,566
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	316.88	300.30	95,159
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	2042.35	112.20	229,152
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	273.48	374.00	102,282
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	Cm	950.00	0.77	732
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	10000.00	0.39	3,850
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	126.66	67.10	8,499

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	241.21	328.90	79,334
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	18.89	6490.00	122,596
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	58.93	6817.80	401,773
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	4.42	77860.20	344,123
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	204.79	289.30	59,246
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	490.52	397.10	194,785
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229	Nos	14.00	161.70	2,264
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	135.81	132.00	17,927

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	21.00	666.60	13,999
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)	Each	7.00	893.00	6,251
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	808.93	304.70	246,482
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	337.36	1452.00	489,847
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	20.00	5280.00	105,600
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	234.67	1332.10	312,604
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	53.95	7914.50	426,987
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	69.30	753.50	52,218
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	69.30	753.50	52,218
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	1518.53	99.00	150,334
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	343.20	447.70	153,651

Sr .No.	Description	Unit	Quantity	Rate	Amount
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	228.80	895.40	204,868
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	57.36	111.10	6,373
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	677.40	61.60	41,728
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	677.40	55.00	37,257
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	241.70	578.60	139,848
B	External Development - Softscape & Hardscape				
34	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	375.50	1446.50	543,161
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	98.00	50.60	4,959
36	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	256.00	25.30	6,477
37	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 16-17,SI No.19.83,Pg No151	Sqm	256.00	101.20	25,907

Sr .No.	Description	Unit	Quantity	Rate	Amount
38	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)	Sqm	555.00	9.90	5,495
GRAND TOTAL					4,833,549

GST @12% on SOR & Non SOR 4,827,298 579276
 GST @18% on Market 0 0

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MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - BASTHIGARDEN

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	1858.00	Area		1858.00
	Ded	Sqm	-1	573.00	Area		-573.00
		Sqm					1285.00
		Ha					0.129
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	47.00		2.00	188.00
	Right side	Sqm	2	52.00		1.80	187.20
	Left side	Sqm	2	50.00		2.10	210.00
	Back side	Sqm	2	47.00		2.10	197.40
	Pillar	Sqm	2	2.40		2.00	9.60
		Sqm			Total		792.20
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	18.80	0.23	2.00	8.65
	Right side	Cum	1	20.80	0.23	1.80	8.61
	Left side	Cum	1	20.00	0.23	2.10	9.66
	Back side	Cum	1	18.80	0.23	2.10	9.08
	Pillar	Cum	2	0.96	0.23	2.00	0.88
	Total Quantity	Cum			Total		36.88
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	18.80		2.00	75.20
	Right side	Sqm	2	20.80		1.80	74.88
	Left side	Sqm	2	20.00		2.10	84.00
	Back side	Sqm	2	18.80		2.10	78.96
	Pillar	Sqm	2	0.96		2.00	3.84
	Total Quantity	Sqm			Total		316.88
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	47.00		2.00	188.00
	Right side	Sqm	2	52.00		1.80	187.20
	Left side	Sqm	2	50.00		2.10	210.00
	Back side	Sqm	2	47.00		2.10	197.40
	Pillar	Sqm	2	2.40		2.00	9.60
	Block 1						
	Outside Building	Sqm	1	88.00		5.63	495.00
	Deduction						
	Door-D	Sqm	-7	1.00		2.10	-14.70
	Window-W	Sqm	-21	0.88		1.50	-27.72
	Ventilator-V	Sqm	-1	0.30		0.45	-0.14
	Ramp						
		Sqm	1	2.40		0.25	0.60
	Chejja	Sqm	34	1.18	0.75		30.09
	Block 2						
	Outside Building	Sqm	1	50.00		5.74	286.83
	Ded						
	Door-D	Sqm	-3	1.04		2.10	-6.55

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Window-W	Sqm	-3	0.90		1.50	-4.05
	Window-W1	Sqm	-10	1.05		1.53	-16.07
	RCC Column	Sqm	12	1.24		2.31	34.37
	Chejja	Sqm	2	1.20	0.72		1.73
		Sqm	14	1.35	0.72		13.61
	Ramp	Sqm	1	2.40		0.25	0.60
	Block 3 Stage						
	Outside Building	Sqm	1	48.28		6.60	318.65
	Ded						
	Door-D	Sqm	-2	1.10		2.00	-4.40
	Window-W	Sqm	-8	0.88		1.50	-10.56
	Window-W1	Sqm	-2	1.50		1.20	-3.60
	Opening -Rolling Shutter	Sqm	-1	3.25		4.60	-14.95
		Sqm	-1	2.70		4.60	-12.42
	Parapet wall	Sqm	2	48.28		0.88	84.49
	Projection	Sqm	2	18.00		0.45	16.20
	Circular Column	Sqm	2	1.70		4.60	15.64
	Block 4 Toilet						
	Outside Building	Sqm	1	16.50		3.00	49.50
	Ded						
	Door-D	Sqm	-2	0.77		1.97	-3.03
	Door-D1	Sqm	-1	1.23		2.10	-2.58
	Door-V	Sqm	-2	0.44		0.27	-0.24
	Ramp	Sqm	2	1.50		0.25	0.75
	Parapet wall	Sqm	2	16.50		0.70	23.10
		Sqm				Total	2042.35
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	47.00		2.00	94.00
	Block 1	Sqm	1	88.00		1.20	105.60
	Block 2	Sqm	1	50.00		1.20	60.00
	Block 3 Stage Front side	Sqm	1	11.57		1.20	13.88
		Sqm				Total	273.48
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	19	50.00			950.00
		Cm				Total	950.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	10000				10000.00
		L				Total	10000.00
9	KSRRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	2.50		2.00	5.00
	Rolling Shutter	Sqm	4	5.95		4.60	109.48
	Ramp Hand Railing	Sqm	4	2.40		1.00	9.60
	Door Shutter	Sqm	1	1.23		2.10	2.58
		Sqm				Total	126.66

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
14	Providing and removing, centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19, SI No.4.28, Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD - 0.45m Clear Width	Sqm	2	75.12		0.15	22.54
	SWD - 0.60m Clear Width	Sqm	2	103.75		0.15	31.13
	SWD Chamber	Sqm	7	2.00		0.10	1.40
	RCC Covered Drain						
	Slab Bottom						
	SWD - 0.45m Clear Width	Sqm	1	75.12	0.45		33.80
	SWD - 0.60m Clear Width	Sqm	1	103.75	0.60		62.25
	Slab side						
	SWD - 0.45m Clear Width	Sqm	2	75.12		0.15	22.54
	SWD - 0.60m Clear Width	Sqm	2	103.75		0.15	31.13
		Sqm					204.79
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19, SI No.4.31, Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD - 0.45m Clear Width	Sqm	4	75.12		0.7	210.34
	SWD - 0.60m Clear Width	Sqm	4	103.75		0.665	275.98
	SWD Chamber	Sqm	7	2.00		0.30	4.20
		Sqm					490.52
16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19, SI No.28.10, Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	14.00				14.00
		Nos					14.00
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19, SI No.2.11, Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				213.83
	PCC Qty	Cum	-1				-18.89
	RCC Qty	Cum	-1				-58.93
	UPVC Pipe 110mm Dia	Cum	-1	21.00	0.01		-0.20
		Cum					135.81
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19, Pg No.77, SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	21.00			21.00
		Rmt					21.00
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc, complete (As Per EOI)						
	SWD Chamber	Each	7.00				7.00
		Each					7.00
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19, SI No.16.39, Pg No 133						
	Block 1						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Outside wall	Sqm	1	88.00		5.63	495.00
	Ramp	Sqm	1	2.40	1.12		2.69
	Block 2						
	Outside wall	Sqm	1	50.00		5.74	286.83
	Ramp	Sqm	1	2.40	1.23		2.95
	Block 3 Stage						
	Outside wall	Sqm	1	48.28		6.60	318.65
	Block 4 Toilet						
	Outside wall	Sqm	1	16.50		3.00	49.50
		Sqm				Total	1155.62
	Total 70% Quantity	Sqm				Total	808.93
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	Block 1						
	Abondened Room	Sqm	1	2.45	3.86		9.46
	Skirting	Sqm	1	12.62		0.15	1.89
	Abondened Room	Sqm	1	2.76	4.36		12.03
	Skirting	Sqm	1	14.24		0.15	2.14
	3rd Class Room	Sqm	1	5.57	5.03		28.02
	Skirting	Sqm	1	21.20		0.15	3.18
	4th Class Room	Sqm	1	5.57	5.05		28.13
	Skirting	Sqm	1	21.24		0.15	3.19
	5th Class Room	Sqm	1	5.57	4.89		27.24
	Skirting	Sqm	1	20.92		0.15	3.14
	Store Room	Sqm	1	5.57	5.53		30.80
	Skirting	Sqm	1	22.20		0.15	3.33
	6th Classes Room	Sqm	1	5.46	5.53		30.19
	Skirting	Sqm	1	21.98		0.15	3.30
	7th class room	Sqm	1	5.39	5.53		29.81
	Skirting	Sqm	1	21.84		0.15	3.28
	Pump Room	Sqm	1	2.75	1.65		4.54
	Skirting	Sqm	1	8.80		0.15	1.32
	Corridor	Sqm	1	6.50	1.85		12.03
		Sqm	1	15.60	1.85		28.86
	Block 2						
	Corridor	Sqm	1	18.85	1.85		34.87
		Sqm	1	7.90	1.85		14.62
	Skirting	Sqm	1	26.75		0.15	4.01
	Block 3 Stage						
	Corridor	Sqm	2	5.18	0.50		5.18
		Sqm	1	7.50	1.50		11.25
	Skirting	Sqm	2	5.18		0.15	1.55
	Total Qty	Sqm				Total	337.36
22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	Block 2						
	Principal Chamber	Sqm	1	3.07	5.66		17.38
	Skirting	Sqm	1	17.46		0.15	2.62
	Total Qty	Sqm				Total	20.00
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108						
	Block 2						
	Hall	Sqm	1	15.09	5.66		85.41
	Skirting	Sqm	1	41.50		0.15	6.23
	Block 3 Stage						
	Stage	Sqm	1	4.85	6.11		29.63
		Sqm	1	4.75	6.11		29.02
		Sqm	1	6.95	6.11		42.46
	Skirting	Sqm	1	37.53		0.15	5.63
	Block 4 Toilet						
	Special Toilet	Sqm	1	1.73	2.85		4.93
	Girls Toliet	Sqm	1	1.10	1.39		1.53
	Boys Toliet	Sqm	1	1.00	1.39		1.39
	Dadooing	Sqm	1	9.16		1.80	16.49
		Sqm	1	4.98		1.80	8.96

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
		Sqm	1	4.78		1.80	8.60
	Ded						
	Door-D	Sqm	-2	0.77		1.97	-3.03
	Door-D1	Sqm	-1	1.23		2.10	-2.58
	Total Qty	Sqm			Total		234.67
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	Block 1						
	Entry Step Tread	Sqm	1	3.38	0.30		1.01
	Entry Step Tread	Sqm	1	4.27	0.30		1.28
	Entry Step Tread	Sqm	1	5.19	0.30		1.56
	Entry Step Tread	Sqm	1	3.40	0.30		1.02
	Entry Step Tread	Sqm	1	4.30	0.30		1.29
	Entry Step Tread	Sqm	1	5.23	0.30		1.57
	Riser	Sqm	1	3.38		0.15	0.51
	Riser	Sqm	1	4.27		0.15	0.64
	Riser	Sqm	1	5.19		0.15	0.78
	Riser	Sqm	1	3.40		0.15	0.51
	Riser	Sqm	1	4.30		0.15	0.65
	Riser	Sqm	1	5.23		0.15	0.78
	Ramp	Sqm	1	2.40	1.12		2.69
	Block 2						
	Entry Step Tread	Sqm	1	9.65	0.30		2.90
	Entry Step Tread	Sqm	1	10.65	0.30		3.20
	Entry Step Tread	Sqm	1	11.32	0.30		3.40
	Entry Step Tread	Sqm	4	1.70	0.30		2.04
	Riser	Sqm	1	9.30		0.15	1.40
	Riser	Sqm	1	9.65		0.15	1.45
	Riser	Sqm	1	10.65		0.15	1.60
	Riser	Sqm	1	11.32		0.15	1.70
	Riser	Sqm	5	1.70		0.15	1.28
	Ramp	Sqm	1	2.40	1.23		2.95
	Block 3 Stage						
	Entry Step Tread	Sqm	2	7.20	0.30		4.32
	Riser	Sqm	2	7.20		0.15	2.16
	Inside Step Tread	Sqm	2	6.11	0.30		3.67
	Inside Step Riser	Sqm	4	6.11		0.15	3.67
	Door step Tread	Sqm	2	1.20	0.30		0.72
	Door step Riser	Sqm	2	1.80		0.15	0.54
	Block 4 Toilet						
	Entry Step Tread	Sqm	2	0.77	0.30		0.46
	Entry Step Riser	Sqm	2	1.07		0.15	0.32
	Ramp	Sqm	1	1.25	1.50		1.88
	Total Qty	Sqm			Total		53.95
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	Block 1						
	Door-D	Sqm	9	1.00		2.10	19.00
	Door-D1	Sqm	1	1.09		2.20	2.00
	Window-W	Sqm	22	0.88		1.50	29.00
	Block 2						
	Door-D	Sqm	3	1.04		2.10	7.00
	Window-W	Sqm	3	0.9		1.50	4.00
	Window-W1	Sqm	10	1.05		1.53	16.00
	Block 3 Stage						
	Door-D	Sqm	2	1.10		2.00	4.00
	Window-W	Sqm	8	0.88		1.50	11.00
	Window-W1	Sqm	2	1.50		1.20	4.00
	Block 4 Toilet						
	Door-D	Sqm	2	0.77		1.97	3.00
		Sqm			Total		99.00
	Total 70% Quantity	Sqm			Total		69.30
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	Block 1						
	Door-D	Sqm	9	1.00		2.10	19.00
	Door-D1	Sqm	1	1.09		2.20	2.00
	Window-W	Sqm	22	0.88		1.50	29.00
	Block 2						
	Door-D	Sqm	3	1.04		2.10	7.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Window-W	Sqm	3	0.90		1.50	4.00
	Window-W1	Sqm	10	1.05		1.53	16.00
	Block 3 Stage						
	Door-D	Sqm	2	1.10		2.00	4.00
	Window-W	Sqm	8	0.88		1.50	11.00
	Window-W1	Sqm	2	1.50		1.20	4.00
	Block 4 Toilet						
	Door-D	Sqm	2	0.77		1.97	3.00
							99.00
	Total 70% Quantity	Sqm			Total		69.30
27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	Block 1						
	Abandoned Room	Sqm	2	6.31		5.10	64.00
	Abandoned Room	Sqm	2	7.12		5.10	73.00
	3rd Class Room	Sqm	2	10.60		5.10	108.00
	4th Class Room	Sqm	2	10.62		5.10	108.00
	5th Class Room	Sqm	2	10.46		5.10	107.00
	Store Room	Sqm	2	11.10		5.10	113.00
	6th Classs Room	Sqm	2	10.99		5.10	112.00
	7th class room	Sqm	2	10.92		5.10	111.00
	Pump Room	Sqm	2	4.40		5.10	45.00
	Ded						
	Door-D	Sqm	-9	1.00		2.10	-19.00
	Door-D1	Sqm	-1	1.09		2.20	-2.00
	Window-W	Sqm	-22	0.88		1.50	-29.00
	Ventilator-V	Sqm	-1	0.30		0.45	-0.14
	Ceiling	Sqm	1	10.00	2.99		29.90
	Block 2						
	Principal Chamber	Sqm	2	8.73		5.23	91.00
	Hall	Sqm	2	20.75		5.23	217.00
	Ded						
	Door-D	Sqm	-3	1.04		2.10	-7.00
	Window-W	Sqm	-3	0.90		1.50	-4.00
	Window-W1	Sqm	-10	1.05		1.53	-16.00
	Block 3 Stage						
	Kalamandir	Sqm	2	23.22		6.08	282.00
	Ded						
	Door-D	Sqm	-2	1.10		2.00	-4.00
	Window-W	Sqm	-8	0.88		1.50	-11.00
	Window-W1	Sqm	-2	1.50		1.20	-4.00
	Rolling shutter	Sqm	-1	5.95		4.60	-27.00
	Ceiling	Sqm	1	17.11	6.11		105.00
	Column-C1	Sqm	2	1.30		5.80	15.00
	Block 4 Toilet						
	Special Toilet	Sqm	2	4.58		2.70	25.00
	Girls Toliet	Sqm	2	2.49		2.70	13.00
	Boys Toliet	Sqm	2	2.39		2.70	13.00
	Ded						
	Door-D	Sqm	-2	0.77		1.97	-3.00
	Door-D1	Sqm	-1	1.23		2.10	-3.00
	Ventilator-V	Sqm	-2	0.44		0.27	-0.24
	Ceiling	Sqm	1	16.00	Area		16.00
	Total Quantity	Sqm			Total		1518.53
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	B1 Block	Sqm	1				340.00
	B2 Block	Sqm	1				232.00
		Sqm			Total		572.00
	Total 60% Quantity	Sqm					343.20
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	School Building	Sqm	1				572.00
		Sqm			Total		572.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Total 40% Quantity	Sqm					228.80
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	B1 Block	Rmt	1	38.20			38.20
	B2 Block	Rmt	1	33.50			33.50
		Rmt			Total		71.70
	Total 80% Quantity	Rmt					57.36
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	Block 1						
	Door-D	Sqm	9	1.00		2.10	18.90
	Door-D1	Sqm	1	1.09		2.20	2.40
	Window-W	Sqm	22	0.88		1.50	29.04
	Wooden Column	Sqm	7	0.40		2.43	6.80
	Rafter & Reepers	Sqm	1				340.00
	Block 2						
	Door-D	Sqm	3	1.04		2.10	6.55
	Window-W	Sqm	3	0.90		1.50	4.05
	Window-W1	Sqm	10	1.05		1.53	16.07
	Rafter & Reepers	Sqm	1				232.00
	Block 3 Stage						
	Door-D	Sqm	2	1.10		2.00	4.40
	Window-W	Sqm	8	0.88		1.50	10.56
	Window-W1	Sqm	2	1.50		1.20	3.60
	Block 4 Toilet						
	Door-D	Sqm	2	0.77		1.97	3.03
		Sqm			Total		677.40
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	Block 1						
	Door-D	Sqm	9	1.00		2.10	18.90
	Door-D1	Sqm	1	1.09		2.20	2.40
	Window-W	Sqm	22	0.88		1.50	29.04
	Wooden Column	Sqm	7	0.40		2.43	6.80
	Rafter & Reepers	Sqm	1				340.00
	Block 2						
	Door-D	Sqm	3	1.04		2.10	6.55
	Window-W	Sqm	3	0.90		1.50	4.05
	Window-W1	Sqm	10	1.05		1.53	16.07
	Rafter & Reepers	Sqm	1				232.00
	Block 3 Stage						
	Door-D	Sqm	2	1.10		2.00	4.40
	Window-W	Sqm	8	0.88		1.50	10.56
	Window-W1	Sqm	2	1.50		1.20	3.60
	Block 4 Toilet						
	Door-D	Sqm	2	0.77		1.97	3.03
		Sqm			Total		677.40
33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	Block 1	Sqm	1	88.00		0.45	39.60
	Abandoned Rcc Slab	Sqm	1	10.00	2.99		29.90
	Block 2	Sqm	1	50.00		0.45	22.50
	Block 3 Stage	Sqm	1	48.28		0.45	21.73

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Rcc Slab	Sqm	1	17.11	6.11		104.54
	Block 4 Toilet	Sqm	1	16.50		0.45	7.43
	Toilet Slab	Sqm	1	16.00	Area		16.00
		Sqm			Total		241.70
34	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Entry Passage area	Sqm	1.00	218.00	1.72		375.50
	Total Qty	Sqm					375.50
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowring plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Compound wall side	Rmt	1.00	98.00			98.00
	Total Qty	Rmt			Total		98.00
36	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Back side of the building near stage	Sqm	1.00	81.60	2.50		204.00
	Back side of the School building	Sqm	1.00	11.56	4.50		52.00
		Sqm			Total		256.00
37	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Back side of the building near stage	Sqm	1.00	81.60	2.50		204.00
	Back side of the School building	Sqm	1.00	11.56	4.50		52.00
		Sqm			Total		256.00
38	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually alround the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)						
	Infront of Stage	Sqm	1.00	27.75	20.00		555.00
	Total Qty	Sqm			Total		555.00

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MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - BASTHIGARDEN

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	Cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
12	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
13	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
14	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm
15	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm

16	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
17	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
18	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2			
	do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
19	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
20	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm
21	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm

22	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
23	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
24	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
25	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
26	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm

27	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119		
	Basic Material Rate		90.00
	Sub Total		90
	Add 10% For Area weightage for Labour		9.00
	Total	Rate	99.00 Sqm
28	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267		
	Basic Rate		407.00
	Sub Total		407
	Add 10% For Area weightage		40.70
	Total Rate	Rate	447.70 Sqm
29	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11		
	Basic Rate		814.00
	Sub Total		814
	Add 10% For Area weightage		81.40
	Total Rate	Rate	895.40 Sqm
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267		
	Baisc rate		101.00
	Sub Total		101
	Add 10% For area weightage (Mangalore City)		10.10
	Total Rate	Rate	111.10 Rmt
31	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123		
	Basic Rate		56.00
	Sub Total		56
	Add 10% For Area weightage		5.60
	Total Rate	Rate	61.60 Sqm
32	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123		
	Basic Rate		50.00
	Sub Total		50
	Add 10% For Area weightage		5.00
	Total Rate	Rate	55.00 Sqm

33	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
34	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
36	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm
37	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 16-17,SI No.19.83,Pg No151			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm

38	KSRB 2.9 : Spreading and forming the excavated earth to required level, slope for an average thickness of 75mm. in all classes of soils including breaking clods and tamping manually around the building and low laying areas complete as per specifications.specification. No. KBS : (KSRB 18-19,Pg No.7,SI No.2.16)		
	Basic Rate		9.00
	Sub Total		9.00
	Add 10% For Area weightage		0.90
	Total Rate	Rate	9.90 Sqm

**Executive Engineer
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MANGALURU SMART CITY
1.1 Grand Summary of E-Smart school - Carstreet

Sr. No.	Description	Cost In INR
1	E-Smart School - Carstreet	
a	Building & Compound wall works	7,552,487
b	Electrical Works	479,096
c	Plumbing Works	188,113
d	External Development - Softscape & Hardscape	1,870,152
	Total Cost	10,089,848

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MANGALURU SMART CITY
1.2 BOQ of E-Smart School - CARSTREET

Sr .No.	Description	Unit	Quantity	Rate	Amount
A	Building & Compound wall works				
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)	Ha	0.28	28330.50	8,018
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)	Sqm	1242.23	5.50	6,832
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)	Cum	77.15	3730.10	287,777
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering. : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116	Sqm	548.32	300.30	164,660
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120	Sqm	2271.80	112.20	254,896
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)	Sqm	297.40	374.00	111,228
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)	cm	1250.00	0.77	963
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algea etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)	L	15000.00	0.39	5,775
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123	Sqm	8.60	67.10	577

Sr .No.	Description	Unit	Quantity	Rate	Amount
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6	Cum	771.17	328.90	253,638
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13	Cum	64.17	6490.00	416,463
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14	Sqm	245.00	797.50	195,388
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14	Cum	144.55	6817.80	985,513
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18	MT	10.84	77860.20	844,102
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16	Sqm	431.25	289.30	124,761
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16	Sqm	1415.11	397.10	561,940
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 29	Nos	16.00	161.70	2,587

Sr .No.	Description	Unit	Quantity	Rate	Amount
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7	Cum	372.16	132.00	49,125
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2				
	do- with 110mm outer dia	Rmt	24.00	666.60	15,998
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EO)	Each	8.00	893.00	7,144
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133	Sqm	296.92	304.70	90,470
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).	Sqm	610.79	1452.00	886,867
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)	Sqm	91.38	5280.00	482,486
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108	Sqm	246.42	1332.10	328,256
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)	Sqm	78.04	7914.50	617,648
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267	Sqm	101.50	753.50	76,480
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267	Sqm	102.90	753.50	77,535

Sr .No.	Description	Unit	Quantity	Rate	Amount
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119	Sqm	1435.67	99.00	142,131
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267	Sqm	272.82	447.70	122,142
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11	Sqm	181.88	895.40	162,855
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267	Rmt	60.23	111.10	6,691
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123	Sqm	171.37	61.60	10,556
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123	Sqm	171.37	55.00	9,425
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69	Sqm	417.49	578.60	241,560
B	External Development - Softscape & Hardscape				
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149	Rmt	135.00	50.60	6,831
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)	Sqm	41.56	912.00	37,903

Sr .No.	Description	Unit	Quantity	Rate	Amount
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149	Sqm	160.00	25.30	4,048
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149	Sqm	160.00	101.20	16,192
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)	Sqm	166.24	1446.50	240,466
40	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)	Nos	173.00	514.80	89,060
41	1 Surface Preparation: Saw cutting further to construction and contol joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vaccum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.				
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF-STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)				

Sr .No.	Description	Unit	Quantity	Rate	Amount
	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)	Sqm	364.00	2600.00	946,400
42	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)	Rmt	94.00	130.00	12,220
43	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	364.00	1400.00	509,600
44	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)	Sqm	15.75	471.90	7,432
	GRAND TOTAL				9,422,639

GST @12% on SOR & Non SOR 7,909,372 949125
GST @18% on Market 1,468,220 264280

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.3 Measurement of E-SMART SCHOOL - CARSTREET

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)						
	Total Area	Sqm	1	4953.00	Area		4953.00
	Ded	Sqm	-1	2123.00	Area		-2123.00
		Sqm					2830.00
		Ha					0.283
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)						
	Compound wall - Front side	Sqm	2	73.70		2.00	294.80
	Right side	Sqm	2	86.00		2.00	344.00
	Left side	Sqm	2	89.10		2.00	356.40
	Back side	Sqm	2	58.00		2.00	232.00
	Pillar	Sqm	2	1.40		2.00	5.60
	Tree Guard	Sqm	2	9.43		0.50	9.43
		Sqm			Total		1242.23
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)						
	Compound wall - Front side	Cum	1	29.48	0.23	2.00	13.56
	Right side	Cum	1	34.40	0.23	2.00	15.82
	Left side	Cum	1	35.64	0.23	2.00	16.39
	Back side	Cum	1	23.20	0.23	2.00	10.67
	Pillar	Cum	2	0.56	0.23	2.00	0.52
	Tree Guard	Cum	2	3.77	0.23	0.50	0.87
	Ampitheter	Cum	1	18.00	0.46	0.60	4.97
		Cum	1	16.00	0.46	0.90	6.62
		Cum	1	14.00	0.46	1.20	7.73
	Total Quantity	Cum			Total		77.15
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116						
	Compound wall - Front side	Sqm	2	29.48		2.00	117.92
	Right side	Sqm	2	34.40		2.00	137.60
	Left side	Sqm	2	35.64		2.00	142.56
	Back side	Sqm	2	23.20		2.00	92.80
	Pillar	Sqm	2	0.56		2.00	2.24
	Ampitheter	Sqm	2	18.00		0.30	10.80
		Sqm	2	16.00		0.60	19.20
		Sqm	2	14.00		0.90	25.20
	Total Quantity	Sqm			Total		548.32
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120						
	Compound wall - Front side	Sqm	2	73.70		2.00	294.80
	Right side	Sqm	2	86.00		2.00	344.00
	Left side	Sqm	2	89.10		2.00	356.40
	Back side	Sqm	2	58.00		2.00	232.00
	Pillar	Sqm	2	1.40		2.00	5.60
	Block 4						
	Outside Building	Sqm	1	79.00		5.00	395.00
	Deduction						
	Door-D	Sqm	-9	1.15		2.30	-23.81

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Door-D2	Sqm	-2	1.20		2.10	-5.04
	Window-W	Sqm	-3	1.15		1.55	-5.35
	Window-W1	Sqm	-5	1.15		1.15	-6.61
	Anna Dasoha building	Sqm	1	14.40		3.50	50.40
	Ded						
	Door-D2	Sqm	-1	1.20		2.10	-2.52
	Window W2	Sqm	-2	1.00		1.20	-2.40
	Block 5						
	Outside Building	Sqm	1	43.10		3.65	157.32
	Toilet	Sqm	1	5.00		3.00	15.00
	Ded						
	Door D	Sqm	-3	1.05		2.10	-6.62
	Door D2	Sqm	-1	0.90		2.10	-1.89
	Window-W	Sqm	-6	0.90		1.25	-6.75
	Ventilator	Sqm	-1	0.80		0.60	-0.48
	Stage						
	Plinth	Sqm	2	12.96		0.75	19.44
	Step	Sqm	1	5.00		0.75	3.75
	Outside wall	Sqm	2	12.96		3.50	90.72
	Front face wall	Sqm	2	0.93		3.50	6.51
	Front parapet	Sqm	1	6.80		1.15	7.82
	Ded						
	Opening	Sqm	-1	4.94	0.3		-1.48
	Door	Sqm	-2	1.20		2.10	-5.04
	Ventilator	Sqm	-4	0.80		0.60	-1.92
	Block 7						
	Outside wall	Sqm	2	10.00		3.75	75.00
	Outside wall	Sqm	2	29.03		3.75	217.73
	Ded						
	Opening	Sqm	-1	3.37		2.10	-7.08
	DV4	Sqm	-7	1.05		2.50	-18.38
	Window-W1	Sqm	-6	1.80		1.50	-16.20
	Window-W	Sqm	-6	2.00		1.50	-18.00
	Ventilator V1	Sqm	-1	3.37		0.60	-2.02
	Ventilator V2	Sqm	-2	1.20		0.60	-1.44
	RCC Column	Sqm	10	1.00		3.75	37.50
	Parapet wall	Sqm	2	25.40		0.80	40.64
	Ampitheter	Sqm	2	18.00		0.30	10.80
		Sqm	2	16.00		0.60	19.20
		Sqm	2	14.00		0.90	25.20
		Sqm				Total	2271.80
6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)						
	Compound wall - Front side	Sqm	1	73.70		2.00	147.40
	B4 Block Outside wall	Sqm	1	79.00		1.20	94.80
	B5 Block Front side	Sqm	1	16.50		1.20	19.80
	B7 Block Front side	Sqm	1	29.50		1.20	35.40
		Sqm				Total	297.40
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)						
	Total Qty-Name Plate,Signages & School Entrance signages on wall	Cm	25	50.00			1250.00
		Cm				Total	1250.00
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, alga etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeeasers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)						
	Total Qty	L	15000				15000.00
		Ltr				Total	15000.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123						
	Entrance Gate	Sqm	1	4.30		2.00	8.60
		Sqm			Total		8.60
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6						
	B4 Block	Cum	1	79.00	0.30	0.45	10.67
	B5 Block	Cum	1	16.50	0.30	0.45	2.23
	Stage	Cum	1	25.92	0.30	0.45	3.50
	B7 Block	Cum	1	73.00	0.30	0.45	9.86
	Amphitheater	Cum	1	16.00	3.50	0.30	16.80
	Entry Driveway	Cum	1	49.00	5.00	0.70	171.50
	RCC Covered Drain						
	SWD-0.3m Clear Width	Cum	1	33.60	0.80	1.00	26.88
	SWD - 0.45m Clear Width	Cum	1	21.00	0.95	1.03	20.55
	SWD - 0.60m Clear Width	Cum	1	314.47	1.10	1.42	489.47
	SWD Chamber	Cum	8	0.70	0.70	0.50	1.96
	UPVC Pipe	Cum	1	24.00	0.75	0.99	17.75
		Cum			Total		771.17
11	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13						
	RCC Covered Drain						
	PCC for Raft						
	SWD-0.3m Clear Width	Cum	1	33.60	0.80	0.10	2.69
	SWD - 0.45m Clear Width	Cum	1	21.00	0.95	0.10	2.00
	SWD - 0.60m Clear Width	Cum	1	314.47	1.10	0.10	34.59
	SWD Chamber	Cum	8	0.70	0.70	0.10	0.39
	Entry Driveway	Cum	1	49.00	5.00	0.10	24.50
					Total		64.17
12	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cement concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volume, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14						
	M15 Cement Concrete flooring for Entrance area	Sqm	1	49.00	5.00		245.00
		Sqm			Total		245.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14						
	RCC Covered Drain						
	Raft						
	SWD-0.3m Clear Width	Cum	1	33.60	0.50	0.15	2.52
	SWD - 0.45m Clear Width	Cum	1	21.00	0.65	0.15	2.05
	SWD - 0.60m Clear Width	Cum	1	314.47	0.80	0.15	37.74
	SWD Chamber	Cum	8	0.50	0.50	0.10	0.20
	Side wall						
	SWD-0.3m Clear Width	Cum	2	33.60	0.10	0.60	4.03
	SWD - 0.45m Clear Width	Cum	2	21.00	0.10	0.63	2.65
	SWD - 0.60m Clear Width	Cum	2	314.47	0.10	1.015	63.84
	SWD Chamber	Cum	8	1.20	0.10	0.30	0.29
	Covered Slab						
	SWD-0.3m Clear Width	Cum	1	33.60	0.30	0.15	1.51
	SWD - 0.45m Clear Width	Cum	1	21.00	0.45	0.15	1.42
	SWD - 0.60m Clear Width	Cum	1	314.47	0.60	0.15	28.30
		Cum					144.55
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18						
	RCC Covered Drain						
	Raft	Kg	1	42.51	75		3188.25
	Side wall	Kg	1	70.81	75		5310.75
	Covered Slab	Kg	1	31.23	75		2342.25
		Kg					10841.25
		MT					10.84
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16						
	RCC Covered Drain						
	Raft side						
	SWD-0.3m Clear Width	Sqm	2	33.60		0.15	10.08
	SWD - 0.45m Clear Width	Sqm	2	21.00		0.15	6.30
	SWD - 0.60m Clear Width	Sqm	2	314.47		0.15	94.34
	SWD Chamber	Sqm	8	2.00		0.10	1.60
	RCC Covered Drain						
	Slab Bottom						
	SWD-0.3m Clear Width	Sqm	1	33.60	0.30		10.08
	SWD - 0.45m Clear Width	Sqm	1	21.00	0.45		9.45
	SWD - 0.60m Clear Width	Sqm	1	314.47	0.60		188.68
	Slab side						
	SWD-0.3m Clear Width	Sqm	2	33.60		0.15	10.08
	SWD - 0.45m Clear Width	Sqm	2	21.00		0.15	6.30
	SWD - 0.60m Clear Width	Sqm	2	314.47		0.15	94.34
		Sqm					431.25
16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16						
	RCC Covered Drain						
	Wall side						
	SWD-0.3m Clear Width	Sqm	4	33.60		0.6	80.64
	SWD - 0.45m Clear Width	Sqm	4	21.00		0.63	52.92

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	SWD - 0.60m Clear Width	Sqm	4	314.47		1.015	1276.75
	SWD Chamber	Sqm	8	2.00		0.30	4.80
		Sqm					1415.11
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229						
	RCC Covered Drain						
	SWD Chamber	Nos	16.00				16.00
		Nos					16.00
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7						
	RCC Covered Drain						
	Total Excavated Qty	Cum	1				556.61
	PCC Qty	Cum	-1				-39.67
	RCC Qty	Cum	-1				-144.55
	UPVC Pipe 110mm Dia	Cum	-1	24.00	0.01		-0.23
		Cum					372.16
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2						
	do- with 110mm outer dia						
	RCC Covered Drain	Rmt	1.00	24.00			24.00
		Rmt					24.00
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,complete (As Per EOI)						
	SWD Chamber	Each	8.00				8.00
		Each					8.00
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133						
	B4 Block						
	Outside wall	Sqm	1	79.00		5.00	395.00
	B5 Block						
	Outside wall	Sqm	1	48.10		3.65	175.57
	Stage						
	Outside area	Sqm	1	65.50		1.93	126.42
	B7 Block						
	Outside area	Sqm	1	78.06		3.75	292.73
		Sqm				Total	989.72
	Total 30% Quantity	Sqm				Total	296.92
22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).						
	B4 Block						
	Office	Sqm	1	5.05	10.01		50.55
	Skirting	Sqm	1	30.12		0.15	4.52
	Store Room	Sqm	1	5.05	4.63		23.38

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Skirting	Sqm	1	19.36		0.15	2.90
	B7 Block						
	Office	Sqm	1	3.37	4.32		14.56
	Skirting	Sqm	1	15.38		0.15	2.31
	Staff Room	Sqm	1	3.37	7.00		23.59
	Skirting	Sqm	1	20.74		0.15	3.11
	B4 Block						
	Room	Sqm	2	3.10	5.17		32.05
	Skirting	Sqm	2	16.54		0.15	4.96
	Room	Sqm	1	3.00	9.03		27.08
	Skirting	Sqm	1	24.05		0.15	3.61
	Room	Sqm	1	3.00	8.90		26.70
	Skirting	Sqm	1	23.80		0.15	3.57
	Passage	Sqm	2	9.26	2.75		50.91
	Skirting	Sqm	2	9.26		0.15	2.78
	Passage	Sqm	2	4.93	2.75		27.12
	Skirting	Sqm	2	4.93		0.15	1.48
	Passage	Sqm	1	5.51	2.75		15.15
	Skirting	Sqm	1	5.51		0.15	0.83
	Annadasoha Building	Sqm	1	8.89	4.72		41.96
	Skirting	Sqm	1	27.22		0.15	4.08
	B5 Block						
	Corridor	Sqm	1	16.45	1.50		24.68
	Skirting	Sqm	1	16.45		0.15	2.47
	B7 Block						
	Corridor	Sqm	1	29.05	2.50		72.63
	Skirting	Sqm	1	29.05		0.15	4.36
	Corridor	Sqm	1	7.20	4.20		30.24
	Staircase Room	Sqm	1	3.37	7.00		23.59
	Skirting	Sqm	1	17.37		0.15	2.61
	Room	Sqm	2	3.37	7.00		47.18
	Skirting	Sqm	2	17.37		0.15	5.21
	NSS/NCC	Sqm	1	3.37	7.00		23.59
	Skirting	Sqm	1	17.37		0.15	2.61
	Passage	Sqm	1	1.45	2.40		3.48
	Skirting	Sqm	1	6.25		0.15	0.94
	Total Qty	Sqm			Total		610.79
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)						
	B4 Block						
	PUC Principal Chamber	Sqm	1	5.70	5.17		29.45
	Skirting	Sqm	1	21.73		0.15	3.26
	High School Principal Chamber	Sqm	1	5.56	5.17		28.75
	Skirting	Sqm	1	21.46		0.15	3.22
	B7 Block						
	Principal Chamber	Sqm	1	3.37	7.00		23.59
	Skirting	Sqm	1	20.74		0.15	3.11
	Total Qty	Sqm			Total		91.38
24	KSRB 14.14-5: Providing Ceramic tiles of approved make, shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment, including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19, SI No.14.36.2, Pg No.107 and 108						
	B5 Block	Sqm					0.00
	Kitchen	Sqm	1	11.57	4.60		53.22
	Skirting	Sqm	1	32.34		0.15	4.85
	Store Room	Sqm	1	4.15	4.60		19.09
	Skirting	Sqm	1	17.50		0.15	2.63
	Toilet	Sqm	1	1.00	1.27		1.27
	Dadoo	Sqm	1	4.54		2.10	9.53
	Ded	Sqm	-1	0.90		2.10	-1.89
	Stage	Sqm	1	6.27	5.43		34.05
	Skirting	Sqm	1	17.13		0.15	2.57
	Front side	Sqm	1	4.20	Area		4.20
	B7 Block						
	Toilet	Sqm	2	1.61	2.50		8.05
	Skirting	Sqm	2	6.61		0.15	1.98
	Toilet	Sqm	4	1.05	1.35		5.67
	Skirting	Sqm	4	3.75		0.15	2.25
	Toilet Passage	Sqm	1	2.02	4.65		9.39

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Skirting	Sqm	1	11.32		0.15	1.70
	Room	Sqm	1	1.80	2.17		3.91
	Skirting	Sqm	1	6.14		0.15	0.92
	Toilet Dadoing	Sqm	2	6.61		2.10	27.76
		Sqm	4	3.75		2.10	31.50
		Sqm	1	11.32		2.10	23.77
	Total Qty	Sqm			Total		246.42
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%, 20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)						
	B4 Block						
	Entry Step Tread	Sqm	2	3.60	0.30		2.16
	Entry Step Tread	Sqm	2	3.00	0.30		1.80
	Entry Step Tread	Sqm	2	2.40	0.30		1.44
	Entry Step Tread	Sqm	2	1.80	0.30		1.08
	Riser	Sqm	2	3.60		0.15	1.08
	Riser	Sqm	2	3.00		0.15	0.90
	Riser	Sqm	2	2.40		0.15	0.72
	Riser	Sqm	2	1.80		0.15	0.54
	Riser	Sqm	2	1.20		0.15	0.36
	Entry Step Tread	Sqm	1	4.90	0.30		1.47
	Entry Step Tread	Sqm	1	4.30	0.30		1.29
	Entry Step Tread	Sqm	1	3.70	0.30		1.11
	Entry Step Tread	Sqm	1	3.10	0.30		0.93
	Riser	Sqm	1	4.90		0.15	0.74
	Riser	Sqm	1	4.30		0.15	0.65
	Riser	Sqm	1	3.70		0.15	0.56
	Riser	Sqm	1	3.10		0.15	0.47
	Riser	Sqm	1	2.50		0.15	0.38
	B5 Block						
	Entry Step Tread	Sqm	1	0.90	0.30		0.27
	Entry Step Tread	Sqm	1	0.60	0.30		0.18
	Entry Step Riser	Sqm	1	0.90		0.15	0.14
	Entry Step Riser	Sqm	1	0.60		0.15	0.09
	Stage Step Tread	Sqm	8	0.30	0.30		0.72
	Stage Step Riser	Sqm	10	0.30		0.15	0.45
	B7 Block						
	Entry Step side Tread	Sqm	2	7.20	0.40		5.76
	Entry Step side Riser	Sqm	3	7.20		0.15	3.24
	Staircase GF-FF						
	Tread	Sqm	26	1.60	0.30		12.48
	Riser	Sqm	30	1.60		0.15	7.20
	Landing	Sqm	1	3.37	1.45		4.89
	Skirting	Sqm	1	6.27		0.15	0.94
	Ampitheter	Sqm	1	18.00	0.50		9.00
		Sqm	1	16.00	0.50		8.00
		Sqm	1	14.00	0.50		7.00
	Total Qty	Sqm			Total		78.04
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267						
	B4 Block						
	Door-D	Sqm	12	1.15		2.30	32.00
	Door-D2	Sqm	3	1.20		2.10	8.00
	Window-W	Sqm	3	1.15		1.55	5.00
	Window-W1	Sqm	5	1.15		1.15	7.00
	B5 Block						
	Door D	Sqm	4	1.05		2.10	9.00
	Door D2	Sqm	1	0.9		2.10	2.00
	Window-W	Sqm	6	0.9		1.25	7.00
	Stage						
	Door-D	Sqm	2	1.2		2.10	5.00
	Block 7						
	Door DV3	Sqm	3	0.9		2.50	7.00
	Door DV4	Sqm	7	1.05		2.50	18.00
	Door D3	Sqm	4	0.9		2.10	8.00
	Window W	Sqm	6	2.0		1.50	18.00
	Window W1	Sqm	6	1.8		1.50	16.00
	V1	Sqm	1	3.37		0.60	2.00
	V2	Sqm	2	1.2		0.60	1.00
		Sqm			Total		145.00
	Total 70% Quantity	Sqm			Total		101.50

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267						
	B4 Block						
	Door-D	Sqm	12.00	1.15		2.30	32.00
	Door-D2	Sqm	3.00	1.20		2.10	8.00
	Window-W	Sqm	3.00	1.15		1.55	5.00
	Window-W1	Sqm	5.00	1.15		1.15	7.00
	Window W2 -Sliding	Sqm	2.00	1.00		1.20	2.00
	B5 Block						
	Door D	Sqm	4	1.05		2.10	9.00
	Door D2	Sqm	1	0.90		2.10	2.00
	Window-W	Sqm	6	0.90		1.25	7.00
	Stage						
	Door-D	Sqm	2	1.20		2.10	5.00
	Block 7						
	Door DV3	Sqm	3	0.90		2.50	7.00
	Door DV4	Sqm	7	1.05		2.50	18.00
	Door D3	Sqm	4	0.90		2.10	8.00
	Window W	Sqm	6	2.00		1.50	18.00
	Window W1	Sqm	6	1.80		1.50	16.00
	V1	Sqm	1	3.37		0.60	2.00
	V2	Sqm	2	1.20		0.60	1.00
							147.00
	Total 70% Quantity	Sqm			Total		102.90
28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119						
	B4 Block						
	Office	Sqm	2	15.06		4.15	125.00
	Store Room	Sqm	2	9.68		4.15	80.00
	Room	Sqm	4	12.00		4.15	199.00
	Room	Sqm	4	8.27		4.15	137.00
	PUC Principal chamber	Sqm	2	10.87		4.15	90.00
	HS Principal Chamaber	Sqm	2	10.87		4.15	90.00
	Anna dasoha Room	Sqm	2	13.60		3.00	82.00
	Ded						
	Door-D	Sqm	-12	1.15		2.30	-32.00
	Door-D2	Sqm	-3	1.20		2.10	-8.00
	Window-W	Sqm	-3	1.15		1.55	-5.00
	Window-W1	Sqm	-5	1.15		1.15	-7.00
	Window W2 -Sliding	Sqm	-2	1.00		1.20	-2.00
	B5 Block						
	Store Room	Sqm	2	8.75		3.25	57.00
	Kitchen	Sqm	2	16.17		3.25	105.00
	Toilet	Sqm	2	2.27		0.9	4.00
	Ded						
	Door D	Sqm	-4	1.05		2.10	-9.00
	Door D2	Sqm	-1	0.90		2.10	-2.00
	Window-W	Sqm	-6	0.90		1.25	-7.00
	Ventilator V2	Sqm	-1	0.80		0.60	-0.48
	Stage	Sqm	2	11.45		3.50	80.15
	Ded						
	Door-D	Sqm	-2	1.20		2.10	-5.00
	Ventilator	Sqm	-4	0.80		0.60	-2.00
	Block 7						
	Principal Room	Sqm	2	10.34		3.25	67.00
	Toilet	Sqm	4	4.12		1.25	21.00
	Office	Sqm	2	7.69		3.25	50.00
	Staff Room	Sqm	2	10.34		3.25	67.00
	Staircase Room	Sqm	2	10.34		3.25	67.00
	Room	Sqm	4	10.34		3.25	134.00
	NSC	Sqm	2	10.34		3.25	67.00
	Toilet	Sqm	8	2.4		1.15	22.00
	Toilet Passage	Sqm	2	6.67		1.15	15.00
	Room	Sqm	2	4.00		3.25	26.00
	Ded						
	Door DV3	Sqm	-3	0.90		2.50	-7.00
	Door DV4	Sqm	-7	1.05		2.50	-18.00
	Door D3	Sqm	-4	0.90		2.10	-8.00
	Window W	Sqm	-6	2.00		1.50	-18.00
	Window W1	Sqm	-6	1.80		1.50	-16.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	V1	Sqm	-1	3.37		0.60	-2.00
	V2	Sqm	-2	1.20		0.60	-1.00
	Total Quantity	Sqm			Total		1435.67
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267						
	B4 Block	Sqm	1				326.00
	Stage	Sqm	1				78.00
		Sqm	1				50.70
		Sqm			Total		454.70
	Total 60% Quantity	Sqm					272.82
30	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11						
	B4 & Stage	Sqm	1				454.70
		Sqm			Total		454.70
	Total 40% Quantity	Sqm					181.88
31	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267						
	B4 Block	Rmt	1	56.20			56.20
	B5 Block	Rmt	1	17.60			17.60
	Stage	Rmt	1	6.50			6.50
		Rmt			Total		80.30
	Total 75% Quantity	Rmt					60.23
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123						
	B4 Block						
	Door-D	Sqm	12	1.15		2.30	31.74
	Door-D2	Sqm	3	1.20		2.10	7.56
	Window-W	Sqm	3	1.15		1.55	5.35
	Window-W1	Sqm	5	1.15		1.15	6.61
	Wooden Column	Sqm	14	0.80		2.10	23.52
	B5 Block						
	Door D	Sqm	4	1.05		2.10	8.82
	Door D2	Sqm	1	0.90		2.10	1.89
	Window-W	Sqm	6	0.90		1.25	6.75
	Wooden Column	Sqm	5	0.8		1.80	7.20
	Stage						
	Door-D	Sqm	2	1.20		2.10	5.04
	Block 7						
	Door DV3	Sqm	3	0.90		2.50	6.75
	Door DV4	Sqm	7	1.05		2.50	18.38
	Door D3	Sqm	4	0.90		2.10	7.56
	Window W	Sqm	6	2.00		1.50	18.00
	Window W1	Sqm	6	1.80		1.50	16.20
		Sqm			Total		171.37
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123						
	B4 Block						
	Door-D	Sqm	12	1.15		2.3	31.74
	Door-D2	Sqm	3	1.20		2.10	7.56
	Window-W	Sqm	3	1.15		1.55	5.35
	Window-W1	Sqm	5	1.15		1.15	6.61
	Wooden Column	Sqm	14	0.8		2.10	23.52
	B5 Block						
	Door D	Sqm	4	1.05		2.10	8.82
	Door D2	Sqm	1	0.90		2.10	1.89
	Window-W	Sqm	6	0.90		1.25	6.75

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Wooden Column	Sqm	5	0.80		1.80	7.20
	Stage						
	Door-D	Sqm	2	1.20		2.10	5.04
	Block 7						
	Door DV3	Sqm	3	0.90		2.50	6.75
	Door DV4	Sqm	7	1.05		2.50	18.38
	Door D3	Sqm	4	0.90		2.10	7.56
	Window W	Sqm	6	2.00		1.50	18.00
	Window W1	Sqm	6	1.80		1.50	16.20
		Sqm			Total		171.37
34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69						
	B4 Block	Sqm	1	79.00		0.45	35.55
	B5 Block	Sqm	1	16.50		0.45	7.43
	Stage	Sqm	1	25.92		0.45	11.66
	B7 Block	Sqm	1	73.00		0.45	32.85
	B7 Block RCC Slab	Sqm	1	30.00	11.00		330.00
		Sqm			Total		417.49
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149						
	Compound wall side -Right,front & Back side	Rmt	1.00	135.00			135.00
	Total Qty	Rmt			Total		135.00
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)						
	Outside Basket Ball Ground	Sqm	1.00	26.00	0.30		7.80
	School Building Outside	Sqm	1.00	137.00	0.55		75.00
	BEO office Outside	Sqm	1.00	168.00	0.74		125.00
	Total Qty-100%	Sqm					207.80
	Total Qty-20%	Sqm			Total		41.56
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149						
	Near Sports Room	Sqm	1.00	160.00	Area		160.00
		Sqm			Total		160.00

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149						
	Near Sports Room	Sqm	1.00	160.00	Area		160.00
		Sqm			Total		160.00
39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)						
	Qty from SI No.36	Sqm	1.00				207.80
	Total Qty -80%	Sqm			Total		166.24
40	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)						
	Total Qty for 1 Kerb Stone	Cum	1.00	0.45	0.33	0.4	0.06
	Total Qty	Rmt	1.00	78.00			78.00
	Total Qty	No			Total		173.00
41	1 Surface Preparation: Saw cutting further to construction and control joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vaccum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint.						
	3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m³ to 12 kg/m³. TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC)						

Sr.No.	Descriptions	Unit	Nos.	Length	Breadth	Depth	Quantity
	Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)						
	Basket Ball Ground	Sqm	1.00	26.00	14.00		364.00
	Total Qty	Sqm			Total		364.00
	CUTTING OF JOINTS						
42	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheid putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)	Rmt	2.00	26.00			52.00
	Basket Ball Ground	Rmt	3.00	14.00			42.00
	Total Qty	Rmt			Total		94.00
	PARCKING COATING- DECKSHEILD SYSTEM- FLOWCRETE						
43	To supply and apply Green Label certified Decksheid system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)	Sqm	1.00	26.00	14.00		364.00
	Total Qty	Sqm			Total		364.00
44	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KSRB 18-19,SI No.24.15)						
	Entrance Area	Sqm	1.00	93.00	0.15		13.95
	Circular	Sqm	1.00	12.00	0.15		1.80
	Total Qty	Sqm			Total		15.75

Executive Engineer
MSCL Mangaluru

GM Technical
MSCL Mangaluru

MANGALURU SMART CITY
1.4 Rate Analysis of E-SMART SCHOOL
RATE ANALYSIS - CARSTREET

1	KSRRB M200-7.1. Clearing grass and removal of rubbish by manual means and stacking outside the periphery of the area cleaned complete as per specifications. MORTH Specification No. 201 PWD 18-19,Page No 138,SI No.18.10)			
	Basic rate		25755	
	Sub Total		25755	
	Add 10% For area weightage		2575.50	
	Total	Rate	28330.50	Ha
2	KSRB 24-9 : Cleaning and washing of stone masonry wall surface with nitric acid including cost of materials, labour, complete as per specifications. Specification No.KBS 18-19, (Page No 130,SI No : 16.4)			
	Basic rate		5.00	
	Sub Total		5.00	
	Add 10% For area weightage		0.50	
	Total	Rate	5.50	Sqm
3	Providing and construction laterite size stone masonry including cost and conveyance of all materials curing etc. complete as per specification.I.S.3620/1979 having compressive strength not less then 3.5N/mm2 for saturated dry samples.For super structure in CM 1:6 (Cement 45 kgs/M3) (KPWD 18-19,Page No 384,SI No : 42.5.3)			
	Basic rate		3391	
	Sub Total		3391	
	Add 10% For area weightage		339.10	
	Total	Rate	3730.10	Cum
4	KSRB 15.3.10 Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry and concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. PWD 18-19,SI No.15.19,Pg No 116			
	Basic rate		273	
	Sub Total		273	
	Add 10% For area weightage		27.30	
	Total	Rate	300.30	Sqm
5	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - do - with Primer PWD 18-19,SI No.15.53.2,Pg No 120			
	Basic Rate		102.00	
	Sub Total		102	
	Add 10% For Area weightage		10.20	
	Total	Rate	112.20	Sqm

6	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat of primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and all other incidental charges including scaffolding and removing stains, complete as per specifications. (KPWD 18-19,SI No.15.103)			
	Basic Rate		340.00	
	Sub Total		340	
	Add 10% For Area weightage		34.00	
	Total	Rate	374.00	Sqm
7	KSRRB MS00-10 Painting new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade complete as per specifications. ("ii) English and Roman - Hyphen and the like not to be measured and paid for" MORTH Specification No.801 (KSRRB 18-19,SI No.24.10)			
	Basic Rate		0.70	
	Sub Total		0.7	
	Add 10% For Area weightage		0.07	
	Total	Rate	0.77	cm
8	Cleaning RCC sump tanks and RCC overhead tanks with mechanical dewatering including removal of sludge, mud, dirt, algae etc and cleaning the wall surface of tanks using high pressure jet, vacuum cleaning and spraying anti bacterial treatment to the wall and ceiling surfaces and UV treatment, including removing of sludge etc, using suitable coconut broomstick, squeezers I wipers I rubber brushes, coir brushes, plastic buckets, mugs, dewatering using motor with portal arrangement, hose pipe etc., complete including all safety measures. (KPWD 18-19,SI No.10.7)			
	Basic Rate		0.35	
	Sub Total		0.35	
	Add 10% For Area weightage		0.04	
	Total	Rate	0.39	L
9	KSRB 15-18.3 : Providing and applying enamel metal paint one coat (excluding priming coat) on previously painted steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.75,Pg No 123			
	Basic Rate		61.00	
	Sub Total		61	
	Add 10% For Area weightage		6.10	
	Total	Rate	67.10	Sqm
10	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 PWD 18-19,SI No.2.3,Pg No 6			
	Basic Rate		299.00	
	Sub Total		299	
	add 10% For Area weightage		29.90	
	Total	Rate	328.90	Cum

11	KSRB 14.9-2 : Providing and laying M-15 cement concrete flooring 60 mm thick with metallic concrete hardner topping, under layer of 45mm thick M-15 cernent concrete using broken granite metal of 20mm and down size and top layer of 15mm thick metallic cement hardner consisting of mix 1:2 (1 cement hardner mix : 2 granite metal 10mm nominal size) by volurne, with metallic hardening compound of approved quality mix in the ratio of 4:1 (4 part of cement= 1 part of metallic floor hardening compound of approved quality by wt), including finishing, cost of materials, labour, curing, complete as per specifications. Specification No. KBS 14.4 PWD 18-19,SI No.14.14			
	Basic Rate		725.00	
	Sub Total		725	
	add 10% For Area weightage		72.50	
	Total	Rate	797.50	Sqm
12	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggretges @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 ems. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 PWD 18-19,SI No.4.6,Pg No 13			
	Basic Rate		5900.00	
	Sub Total		5900	
	add 10% For Area weightage		590.00	
	Total	Rate	6490.00	Cum
13	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestrals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnspillers, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. PWD 18-19,SI No.4.10,Pg No 14			
	Basic Rate		6198.00	
	Sub Total		6198	
	add 10% For Area weightage		619.80	
	Total	Rate	6817.80	Cum
14	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 PWD 18-19,SI No.4.46.2,Pg No 18			
	Basic Rate		70782.00	
	Sub Total		70782	
	add 10% For Area weightage		7078.20	
	Total	Rate	77860.20	MT
15	Providing and removing,centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD 18-19,SI No.4.28,Pg No 16			
	Basic Rate		263.00	
	Sub Total		263	
	add 10% For Area weightage		26.30	
	Total	Rate	289.30	Sqm

16	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. PWD 18-19,SI No.4.31,Pg No 16			
	Basic Rate		361.00	
	Sub Total		361	
	add 10% For Area weightage		36.10	
	Total	Rate	397.10	Sqm
17	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe , extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. PWD 18-19,SI No.28.10,Pg No 229			
	Basic Rate		147.00	
	Sub Total		147	
	add 10% For Area weightage		14.70	
	Total	Rate	161.70	Nos
18	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. PWD 18-19,SI No.2.11,Pg No 7			
	Basic Rate		120.00	
	Sub Total		120	
	add 10% For Area weightage		12.00	
	Total	Rate	132.00	Cum
19	Providing and fixing unplasticised PVC pipes with working pressure 10 kg/sq.cm with pipe fittings, clips, making good the floor, including cost of all materials, labour charges, HOM and testing complete as per specifications. KSRB 18-19,Pg No.77,SI No.11.56.2			
	do- with 110mm outer dia			
	Basic Rate		606.00	
	Sub Total		606	
	add 10% For Area weightage		60.60	
	Total	Rate	666.60	Rmt
20	Providing & Fixing CI Grating (325 x 325mm) for road gully cover including fixing the cover and CM 1:3 Plastering 20mm thick to all exposed faces curing for 90 days with all lead including cost of plastering but excluding cost of concrete etc,completete (As Per EOI)			
	Basic Rate		893.00	
	Sub Total		893	
	Total	Rate	893.00	Each
21	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:4 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 PWD 18-19,SI No.16.39,Pg No 133			
	Basic Rate		277	
	Sub Total		277	
	Add 10% For Area weightage		27.70	
	Total	Rate	304.70	Sqm

22	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. (P.No. 109, I.No. 14.43 of SR 2018-19).			
	Basic Rate		1320.00	
	Sub Total		1320	
	Add 10% For Area weightage		132.00	
	Total	Rate	1452.00	Sqm
23	Providing and laying of teak wooden polished flooring of 12mm thick, high density timber of approved colour and design with end trims, transition, profiles, beading, 15mm thick felt, and 20 micron polyester film with 4mm thick foam underlay etc., (P.No.113, I.No.14.70 of PWD SR 2018-19)			
	Basic Rate		4800.00	
	Sub Total		4800	
	Add 10% For Area weightage		480.00	
	Total	Rate	5280.00	Sqm
24	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles of size 30x30cms 6mm thick. PWD 18-19,SI No.14.36.2,Pg No.107 and 108			
	Basic Rate		1211.00	
	Sub Total		1211	
	Add 10% For Area weightage		121.10	
	Total	Rate	1332.10	Sqm
25	Providing and laying pattern flooring for staircase treads and risers using the combination of 20mm thick ruby red granite @ 66%,20 mm thick grey granite @ 20%, 20mm thick, 20mm thick black granite 14%. The granite materials are laid on existing bed of CM 1:3 20mm thick pointed with colour pigment, including full rounding for nosing, flaming the ruby red granite for 50 mm wide curing etc., complete as per specification. (P.No. 109, I.No. 14.46 of PWD SR 2018-19)			
	Basic Rate		7195.00	
	Sub Total		7195	
	Add 10% For Area weightage		719.50	
	Total	Rate	7914.50	Sqm
26	Repairing door and window frames with available wood to the required size. PWD 18-19,SI No.37.12,Pg No 267			
	Basic Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage		68.50	
	Total	Rate	753.50	Sqm
27	Repairing and fixing shutters (panelled or glazed) to doors, windows, ventilators and cupboards. PWD 18-19,SI No.37.13,Pg No.267			
	Basic Material Rate		685.00	
	Sub Total		685	
	Add 10% For Area weightage for Labour		68.50	
	Total	Rate	753.50	Sqm

28	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - do- with primer PWD 18-19,SI No.15.51.2,Pg No.119			
	Basic Material Rate		90.00	
	Sub Total		90	
	Add 10% For Area weightage for Labour		9.00	
	Total	Rate	99.00	Sqm
29	Supplying and fixing new Mangalore tiles on existing reepers. PWD 18-19,SI No.37.9,Pg No.267			
	Basic Rate		407.00	
	Sub Total		407	
	Add 10% For Area weightage		40.70	
	Total Rate	Rate	447.70	Sqm
30	Removing and fixing old Mangalore ridge tiles including pointing with C.M. 1:3. PWD 18-19,SI No.37.10,Pg No.267			
	Baisc rate		101.00	
	Sub Total		101	
	Add 10% For area weightage (Mangalore City)		10.10	
	Total Rate	Rate	111.10	Rmt
31	KSRB 8.4: Providing and fixing Mangalore tile roofing using first class tiles with necessary special tiles for ridges and hips, wood reepers and pointed with cement mortar 1:4 over the existing rafters including cost of materials, labour, curing complete as per specifications. Specification No. KBS 8.17KSRB 8.4-2: do- Nandi wood reepers of size 50x25mm PWD 18-19,SI No.8.11			
	Basic Rate		814.00	
	Sub Total		814	
	Add 10% For Area weightage		81.40	
	Total Rate	Rate	895.40	Sqm
32	KSRB 15-17.19: Providing and applying painting one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.71,Pg No.123			
	Basic Rate		56.00	
	Sub Total		56	
	Add 10% For Area weightage		5.60	
	Total Rate	Rate	61.60	Sqm
33	KSRB 15-17.19:Applying additional one coat (excluding priming coat) on previously painted wood surface and / or wood based surface with black japan paint to give an even shade after cleaning the surface of all dirt, dust and foreign matter, including cost of materials, labour, complete as per specifications. PWD 18-19,SI No.15.72,Pg No.123			
	Basic Rate		50.00	
	Sub Total		50	
	Add 10% For Area weightage		5.00	
	Total Rate	Rate	55.00	Sqm

34	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids,cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification PWD 18-19,SI No.10.5.1,Pg No 69			
	Basic Rate		526.00	
	Sub Total		526.00	
	Add 10% For Area weightage		52.60	
	Total Rate	Rate	578.60	Sqm
35	KSRRB M300- Planting and Maintaining of Flowering Plants and Shrubs KSRRB M300- 8.1. Planting and Maintaining of Flowering Plants and Shrubs - A) Planting flowering plants and shrubs in central verge MORTH Specification No. 307 PWD 18-19,SI No.19.86,Pg No 149			
	Basic Rate		46.00	
	Sub Total		46.00	
	Add 10% For Area weightage		4.60	
	Total Rate	Rate	50.60	Rmt
36	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (As Per EOI)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00	
	Sub Total		912.00	
	Total Rate	Rate	912.00	Sqm
37	KSRRB M300-Turfing lawns with fine grassing including ploughing, dressing KSRRB M300-5. Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm complete as per specifications. MORTH Specification No. 307 PWD SOR 18-19,SI No.19.82,Pg No149			
	Basic Rate		23.00	
	Sub Total		23.00	
	Add 10% For Area weightage		2.30	
	Total Rate	Rate	25.30	Sqm
38	KSRRB M300- Maintenance of lawns with fine grassing for the first year KSRRB M300-6. Maintenance of lawns with fine grassing for the first year including watering etc complete as per specifications. MORTH Specification No. 307. PWD SOR 18-19,SI No.19.83,Pg No149			
	Basic Rate		92.00	
	Sub Total		92.00	
	Add 10% For Area weightage		9.20	
	Total Rate	Rate	101.20	Sqm

39	Providing and fixing Vitrified glazed tiles of approved make, quality & colour of size 900 x 900 x 12mm thick fixed on bed of 12mm thick cement mortar for flooring, skirting and JOinted with neat cement slurry mixed with pigment to mach shade of tiles, including providing spacers at required interval and removing stains, including cost of all mateirals, mortar, labour, etc., Complete as per specification. (KPWD 18-19,SI.No.14.45.1)			
	Basic Rate		1315.00	
	Sub Total		1315.00	
	Add 10% For Area weightage		131.50	
	Total Rate	Rate	1446.50	Sqm
40	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete. do- of size 450 x 150 x 400 mm (KSRRB 18-19,Pg No.27,SI No.5.29.1)			
	Basic Rate		468.00	
	Sub Total		468.00	
	Add 10% For Area weightage		46.80	
	Total Rate	Rate	514.80	Nos
41	1 Surface Preparation: Saw cutting further to construction and contol joints in floor to 10mm wide x 10mm deep as shear key, include surface preparation by mechanical means using Grinding machines with frequency control drive and planetary drive, equipped with a vaccum pipe for dust collection. where operating width should not be more than 400mm, power 5HP 3phase, voltage 220V/415V, Motor speed should be 700 RPM-900 RPM followed by Hand grinding machine for non approachable areas as directed in BS 8203 : Code of practice for installation of resilient floor coverings,BS 8204 Parts 1, 3, 6 and 7 and FERFA followed by as required all in complete as per manufacturers and EIC . Work need to be done by flooring specialist only recommended by Flowcrete only. 2.Clean the surface thoroughly, fix the shear anchor with designed gap of construction and control joint. 3. Supplying and Installing Versaspeed / Thin top Supreme/ Eucocrete of FLOWCRETE (USA) versatile, single-component, rapid-setting mortar for horizontal, and form and pour repair projects. Requiring only the addition of water and 25% -40% pea aggregates, where the compressive strength should be 58.6Mpa as per ASTM C 109, Flexural strength as per ASTM C 348 should be 6.2Mpa in 1 day, Linear shrinkage as per ASTM C157 should be -0.083%, chloride permeability should be 900 coulombs as per ASTM C 1202 along with along with TUF-STRAND SF "structural fibers" of FLOWCRETE are a patented polypropylene / polyethylene synthetic macro-fiber successfully used to replace steel fibers, welded wire mesh and conventional reinforcing bars in a wide variety of applications. TUF- STRAND SF fibers comply with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete, and are specifically designed to provide equivalent tensile and bending resistance to conventional reinforcement requirements. Concrete reinforced with TUF-STRAND SF will have three-dimensional reinforcing with enhanced flexural toughness, impact and abrasion resistance and will also help mitigate the formation of plastic shrinkage cracking in concrete. Dosage rates will vary depending upon the reinforcing requirements and can range from 1.8 kg/m ³ to 12 kg/m ³ . TUF-STRAND SF synthetic macro-fibers comply with applicable portions of the International Code Council (ICC) Acceptance Criteria AC32 for synthetic fibers, are UL certified for composite metal deck construction and are recognized within ACI 360 and SDI/ANSI-C1.0 as a reinforcing alternate to WWF. Mixing and applying repair Mortar as per the manufacturer's recommendations within the open time of the bonding agents. Finish to level of surrounding concrete surface utilizing techniques recommended and finished with bull floater top of by manufacturer or as per the site Engineer. THICKNESS- 30MM (Market Rate)			
	Basic Rate		2600.00	
	Sub Total		2600.00	
	Total Rate	Rate	2600.00	Sqm

42	Cutting 10mmX10mm joint where the joint a/b should not be more than 1.02, (As per TR34). followed by Providing and filling Decksheild putty/ EUCO700 all in complete as per manufacturer direction or EIC.(Market Rate)		
	Basic Rate		130.00
	Sub Total		130.00
	Total Rate	Rate	130.00 Rmt
43	To supply and apply Green Label certified Decksheild system, low VOC as per ISO11890-2 resulted in Very Low <20g/L, solvent free, flexible polyurethane park deck coating system providing a colourful watertight, hard- wearing surface for intermediate decks of multi-storey, basement and other trafficable suspended floors consisting of 3 component, solvent free, Polyurethane based primer/body coat/binding agent having solid content of approximately 100% which accepts silica aggregate scatter to produce an anti skid surface as well as 2 component, coloured, flexible polurethane coating having 100% solid contents to seal the aggregate layer where UV light staibility is not critical having chemical resistance property to Petrol, Diesel, Antifreeze, Hydraulic Fluids, Chlorides & Battery Acids etc. Technical profile having Fire resistance -BS476-3 Designated EXT.F.AA, Slip Resistance as per TRRL Pendulum Slip Test resulted in Dry>40. Wet>40 (Low Slip Potential), Abrasion Resiatance as per Taber Abrader resulted in 0.1 mg loss per 1000 cycles (1Kg Load using CS17 wheels). For exposed area UV stable 2 component Polyurethane based top coat having abrasion resistance as per Taber Abrader: 0.1g loss per 1000 cycles, 100% UV Light stable & prevents from yellowing effect, followed by as required all in complete as per manufacturers and EIC (Market Rate)		
	Basic Rate		1400.00
	Sub Total		1400.00
	Total Rate	Rate	1400.00 Sqm
44	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 (KS RB 18-19,SI No.24.15)		
	Basic Rate		429.00
	Sub Total		429.00
	Add 10% For Area weightage		42.90
	Total Rate	Rate	471.90 Sqm

Executive Engineer
MSCL Mangaluru

G M Technical
MSCL Mangaluru

Document : Electrical cost estimate for Government school

Sr. No	Description	Cost estimate in Rs.
1	Dakshina Kannada Zilla Prathamikta Hera School, Pandeshwara, Ward-46	523393
2	Govt. High School, Urdu, Bunder, Ward 46	384052
3	Govt. Higher Secondary School, Hoigebazar ward-57	357727
4	Primary School, Hoigebazar, Ward-57	352464
5	Gov. Upper Primary School, Neereshwalya, Ward-45	184770
6	Block Education Office and Govt High School, Bolar	442954
7	Govt.primary and secondary school and College, Balmatta, Ward-40	659206
8	Govt. Practicing School, Opp. Maidan Road near Railway Station	727483
9	Govt.Primary School, Bastigarden, Ward-41	350533
10	Govt. Women's Pre-university College, Rathabeedi, Car Street	479096
	Grand Total Cost	4461678

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GM TECHNICAL
MSCL MANGALURU**

**MANGAING DIRECTOR
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Dakshina Kannada Zilla Prathamikta School, Pandeshwara, Ward-46

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	21	1,146	24074
2	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	5	600	3001
3	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	260	26	6760
4	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
5	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
6	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
7	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		315	42.1	13262
8	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	12	245.0	2940
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	6	363.0	2178
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	8	215.0	1720

Item No.	Description	Unit	Qty.	Unit Rate	Amount
11	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
12	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	7	63.0	441
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	7	114.0	798
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	7	147.0	1029
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	15	286.0	4290
16	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	15	29.0	435
17	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	15	2,376.0	35640
18	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
19	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	4	12,420.0	49680
20	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	4	2,400.0	9600
21	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	1	11,782.9	11783
22	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	1	1,547.0	1547
23	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	162	117.0	18954

Item No.	Description	Unit	Qty.	Unit Rate	Amount
24	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	28	81.6	2285
25	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	8	11.3	90
26	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	8	3.2	26
27	Chemical Earthing for grounding,conduits,IC cut outs and otherequipments on the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
28	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
29	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1 12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia	Each	2	120,000.0	240000
30	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	8	8400	67200
Total					523393

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BILL OF QUANTITIES-Urdu school bunder road

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing CFL, 1 x 9 W, surface mounted supply, installation, testing and commissioning of new LED 6W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	1	1,212	1212
2	Removal of existing CFL, 1 x 12 W, Surface mounted supply, installation, testing and commissioning of new LED 6 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	1	1,303	1303
3	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	20	1,146	22928
4	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	10	600	6002
5	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	320	26	8320
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
8	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
9	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		675	42.1	28418
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	16	245.0	3920
11	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	6	363.0	2178
12	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	10	215.0	2150

Item No.	Description	Unit	Qty.	Unit Rate	Amount
13	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	15	63.0	945
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	15	114.0	1710
16	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	15	147.0	2205
17	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	15	286.0	4290
18	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	20	29.0	580
19	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	15	2,376.0	35640
20	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
21	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	3	12,420.0	37260
22	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	3	2,400.0	7200
23	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	1	11,782.9	11783
24	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	1	1,547.0	1547
25	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	200	117.0	23400
26	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	21	81.6	1714

Item No.	Description	Unit	Qty.	Unit Rate	Amount
27	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	6	11.3	68
28	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	6	3.2	19
29	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
30	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
31	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 2301 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1	Each	1	120,000.0	120000
32	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	4	8400	33600
Total					384052

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-GHS Hoigebazar

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	10	1,146	11464
2	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	9	600	5401
3	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	190	26	4940
4	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
5	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm	Mtr	100	29.2	2920
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm	Mtr	330	42.1	13893
8	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	10	245.0	2450
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	4	363.0	1452
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	5	215.0	1075
11	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
12	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	11	63.0	693

Item No.	Description	Unit	Qty.	Unit Rate	Amount
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	11	114.0	1254
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	11	147.0	1617
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	8	286.0	2288
16	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/philip plugs and screw. Electrical SOR 3.13.2	No.	8	29.0	232
17	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	8	2,376.0	19008
18	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
19	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	1	938.0	938
20	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	1	2,945.0	2945
21	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanized Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	4	12,420.0	49680
22	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	5	2,400.0	12000
23	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.-above 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos	1	620.0	620
24	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	1	11,782.9	11783
25	Supply and fixing of miniature circuit breaker on existing board using necessary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	1	1,547.0	1547
26	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	258	117.0	30186

Item No.	Description	Unit	Qty.	Unit Rate	Amount
27	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	35	81.6	2856
28	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	10	11.3	113
29	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	10	3.2	32
30	Chemical Earthing for grounding,conduits,IC cut outs and otherequipments on the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
31	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
32	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1 12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia	Each	1	120,000.0	120000
33	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	4	8400	33600
Total					357727

**EXECUTIVE ENGINEER
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**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Primary School, Hoigebazar, Ward-57

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing CFL, 1 x 9 W, surface mounted supply, installation, testing and commissioning of new LED 6W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	3	1,212	3637
2	Removal of existing FTL, 2 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 2 x 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	6	1,691	10146
3	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	7	600	4201
4	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	160	26	4160
5	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
8	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		315	42.1	13262
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	7	245.0	1715
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	4	363.0	1452
11	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	5	215.0	1075

Item No.	Description	Unit	Qty.	Unit Rate	Amount
12	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	7	63.0	441
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	7	114.0	798
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	7	147.0	1029
16	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	12	286.0	3432
17	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	12	29.0	348
18	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	12	2,376.0	28512
19	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
20	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	4	12,420.0	49680
21	Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	4	2,400.0	9600
22	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	1	11,782.9	11783
23	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	1	1,547.0	1547
24	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	205	117.0	23985

Item No.	Description	Unit	Qty.	Unit Rate	Amount
25	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	28	81.6	2285
26	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	8	11.3	90
27	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	8	3.2	26
28	Chemical Earthing for grounding,conduits,IC cut outs and otherequipments on the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
29	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
30	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1 12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia	Each	1	120,000.0	120000
31	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	4	8400	33600
Total					352464

**EXECUTIVE ENGINEER
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**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Gov. Upper Primary School, Neereshwalya, Ward-45

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	9	1,146	10318
2	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	2	600	1200
3	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	110	26	2860
4	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
5	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		450	42.1	18945
8	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	5	245.0	1225
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	3	363.0	1089
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	3	215.0	645

Item No.	Description	Unit	Qty.	Unit Rate	Amount
11	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
12	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	10	63.0	630
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	10	114.0	1140
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	10	147.0	1470
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	12	286.0	3432
16	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	12	29.0	348
17	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	12	2,376.0	28512
18	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
19	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	4	12,420.0	49680
20	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	4	2,400.0	9600
21	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	1	11,782.9	11783
22	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	1	1,547.0	1547
23	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5.7.5.4)	m	105	117.0	12285

Item No.	Description	Unit	Qty.	Unit Rate	Amount
24	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	28	81.6	2285
25	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	8	11.3	90
26	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	8	3.2	26
27	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
28	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
Total					184770

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Mangalore Smart City

BILL OF QUANTITIES-Block Education Office and Govt High School, Bolar

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing CFL, 1 x 16 W, Surface mounted supply, installation, testing and commissioning of new LED 8 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	2	1,335	2671
2	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	48	1,146	55027
3	40 W Incandescent lamp Removal of existing 40W incandescent light fixture. Supply, installation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	3	600	1800
4	Supply and fixing of PVC casing and capping on the wall or ceiling using necessary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	530	26	13780
5	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
8	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		675	42.1	28418
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	30	245.0	7350
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	7	363.0	2541

Item No.	Description	Unit	Qty.	Unit Rate	Amount
11	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	16	215.0	3440
12	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	15	63.0	945
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	15	114.0	1710
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	15	147.0	2205
16	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	20	286.0	5720
17	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	20	29.0	580
18	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	20	2,376.0	47520
19	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
20	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	2	938.0	1876
21	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	2	2,945.0	5890
22	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	2	12,420.0	24840

Item No.	Description	Unit	Qty.	Unit Rate	Amount
23	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	4	2,400.0	9600
24	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	2	11,782.9	23566
25	Supply and fixing of miniature circuit breaker on existings board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	2	1,547.0	3094
26	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	160	117.0	18720
27	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	28	81.6	2285
28	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	8	11.3	90
29	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	8	3.2	26
30	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
31	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560

Item No.	Description	Unit	Qty.	Unit Rate	Amount
32	<p>Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1</p> <p>12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia</p>	Each	1	120,000.0	120000
33	<p>Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)</p>	No	4	8400	33600
Total					442954

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Balmatta

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	21	1,146	24074
2	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	17	600	10203
3	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	570	26	14820
4	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
5	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
6	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm	Mtr	100	29.2	2920
7	Wiring for lighting/power circuit using one of the FRLS PVC insultated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm	Mtr	450	42.1	18945
8	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	12	245.0	2940
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	15	363.0	5445
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	11	215.0	2365

Item No.	Description	Unit	Qty.	Unit Rate	Amount
11	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
12	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	15	63.0	945
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	15	114.0	1710
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	15	147.0	2205
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	15	286.0	4290
16	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	30	29.0	870
17	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply conforming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	15	2,376.0	35640
18	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	5	1,700.0	8500
19	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	10	938.0	9380
20	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	10	2,945.0	29450
21	Lighting Pole, 4 m Fabrication, supply and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No.5.14.2)	No	3	7,398.0	22194
22	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	15	2,400.0	36000
23	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.-above 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos	10	620.0	6200

Item No.	Description	Unit	Qty.	Unit Rate	Amount
24	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	2	11,782.9	23566
25	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	2	1,547.0	3094
26	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	526	117.0	61542
27	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	82	81.6	6691
28	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	26	11.3	294
29	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	26	3.2	83
30	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
31	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
32	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 2301 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1 12Mtrs/12 5Mtrs - Top 100mm and bottom 310 mm dia	Each	2	120,000.0	240000

Item No.	Description	Unit	Qty.	Unit Rate	Amount
33	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	8	8400	67200
Total					659206

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Govt. Practicing School, Opp. Maidan Road near Railway Station

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing CFL, 1 x 16 W, Surface mounted supply, installation, testing and commissioning of new LED 8 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	6	1,335	8012
2	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	74	1,146	84834
3	Removal of existing FTL, 2 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 2 x 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	1	1,691	1691
4	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	24	600	14404
5	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	1050	26	27300
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
8	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm	Mtr	200	29.2	5840
9	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm	Mtr	750	42.1	31575
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	40	245.0	9800
11	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	34	363.0	12342

Item No.	Description	Unit	Qty.	Unit Rate	Amount
12	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	31	215.0	6665
13	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	100	70.0	7000
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	25	63.0	1575
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	25	114.0	2850
16	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	25	147.0	3675
17	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	25	286.0	7150
18	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	30	29.0	870
19	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	25	2,376.0	59400
20	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	2	1,700.0	3400
21	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	2	938.0	1876
22	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	2	2,945.0	5890
23	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	2	12,420.0	24840

Item No.	Description	Unit	Qty.	Unit Rate	Amount
24	Lighting Pole, 4 m Fabrication, supply and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No.5.14.2)	No	1	7,398.0	7398
25	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	0	3,540.0	0
26	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	5	2,400.0	12000
27	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.-above 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos	2	620.0	1240
28	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	2	11,782.9	23566
29	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	2	1,547.0	3094
30	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	300	117.0	35100
31	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	32	81.6	2611
32	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	10	11.3	113
33	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	10	3.2	32
34	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
35	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560

Item No.	Description	Unit	Qty.	Unit Rate	Amount
36	<p>Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1</p> <p>12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia</p>	Each	2	120,000.0	240000
37	<p>Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)</p>	No	8	8400	67200
Total					727483

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Govt. Primary school. Bastigarden

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	9	1,146	10318
2	40 W Incandescent lamp Removal of existing 40W incadescent light fixture. Supply, intallation, testing and commissioning of new LED 6 W light fixture with 50000 burning hours or 5 years of warranty	Nos.	4	600	2401
3	Supply and fixing of PVC casing and capping on the wall or ceiling using necessasary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	130	26	3380
4	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
5	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concelead system of wiring with specified IS-694:1990 & confirming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		675	42.1	28418
8	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	10	245.0	2450
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	3	363.0	1089
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	4	215.0	860

Item No.	Description	Unit	Qty.	Unit Rate	Amount
11	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
12	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	15	63.0	945
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	15	114.0	1710
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	15	147.0	2205
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	14	286.0	4004
16	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	14	29.0	406
17	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	14	2,376.0	33264
18	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	3	1,700.0	5100
19	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	4	938.0	3752
20	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	4	2,945.0	11780
21	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanized Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, including suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	1	12,420.0	12420
22	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	5	2,400.0	12000

Item No.	Description	Unit	Qty.	Unit Rate	Amount
23	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.-above 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos	4	620.0	2480
24	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	1	11,782.9	11783
25	Supply and fixing of miniature circuit breaker on existig board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	1	1,547.0	1547
26	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	180	117.0	21060
27	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	35	81.6	2856
28	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	10	11.3	113
29	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	10	3.2	32
30	Chemical Earthing for grounding,conduits,IC cut outs and otherequipments on the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)	Kit	2	5,500.0	11000
31	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560

Item No.	Description	Unit	Qty.	Unit Rate	Amount
32	<p>Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing).Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1</p> <p>12Mtrs/12.5Mtrs - Top 100mm and bottom 310 mm dia</p>	Each	1	120,000.0	120000
33	<p>Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)</p>	No	4	8400	33600
Total					350533

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Govt. Women's Pre-university College, Rathabeedi, Car Street

Item No.	Description	Unit	Qty.	Unit Rate	Amount
1	Removal of existing FTL, 1 x 36 W, surface mounted supply, installation, testing and commissioning of new LED 18 W light fixture and commissioning with 50000 burning hours or 5 years of warranty	Nos.	42	1,146	48149
2	Removal of existing Halogen, 500 W. Supply, installation, testing and commissioning of LED 150 W fixture with 50000 burning hours or 5 years of warranty	Nos.	2	11,351	22702
3	Supply and fixing of PVC casing and capping on the wall or ceiling using necessary material like bends, screws at interval of 300 mm ... etc as required.(Electrical SOR 1.8.2) 25 mm	Mtr	630	26	16380
4	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A (Electrical SOR 2.5.1) 1 sq. mm	Mtr	50	13	650
5	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A (Electrical SOR 2.5.2) 1.5 sq. mm	Mtr	50	18.6	930
6	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A ((Electrical SOR 2.5.3) 2.5 sq. mm		100	29.2	2920
7	Wiring for lighting/power circuit using one of the FRLS PVC insulated 1100V grade, multistrand copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP group A ((Electrical SOR 2.5.4) 4 sq. mm		450	42.1	18945
8	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	14	245.0	3430
9	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP with 6A flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.1.3) Medium point above 6 mtr upto 10 mtr from tapping point to outlet via switch	point	15	363.0	5445
10	Supply and wiring adopting loop system in existing PVC conduit/casing capping using 1100 grade, copper conductor, flexible FRLS PVC insulated 2 x 1.5 sq. mm cable conforming to GTP without switch, the other end of wires shall be terminated with sufficient loose length in a wood/pvc round block complete for each outlet (Electrical SOR 2.3.2) Medium point above 3 mtr upto 6 mtr from tapping point to outlet via switch	point	13	215.0	2795
11	Supplying heavy gauge pvc conduit dia 25 mm dia 2 mm thick conforming to IS 2509 suitable size bends, junction boxes, adhesive paste etc. and fixing using inverted wood plug incase of RCC ceiling and RCC wall/ stone structure or rawl plugs in case of brick wall and cement plastering the damage portion using heavy gauge saddles at an interval of 700 mm using NF screws. (Electrical SOR 1.1)	Mtr	50	70.0	3500
12	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.1 6A one way switch	Each	15	63.0	945

Item No.	Description	Unit	Qty.	Unit Rate	Amount
13	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 16A one way switch	Each	15	114.0	1710
14	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.2 6/16A universal socket	Each	15	147.0	2205
15	Supply and fixing of modular switch/socket/stepped electronic fan regulator/dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293. Electrical SOR 3.7.4 Stepped fan regulator	Each	15	286.0	4290
16	Supplying 2 to 4 way plastic gang box and fixing using necessary wooden/raw/phill plugs and screw. Electrical SOR 3.13.2	No.	25	29.0	725
17	Supplying capacitor type ceiling fan complete with down rod blades, shackles, canopies etc. operation on 230V, 50 cycles. Single phase AC supply confirming to IS -374-1979 and double ball bearing system. Electrical SOR 9.3.1.1 1200 mm regular model	No	15	2,376.0	35640
18	Supplying exhaust fan of 1440 RPM of 300 mm size with bracket blades complete for light duty suitable to operate on 230V, 50 HZ AC supply	No	2	1,700.0	3400
19	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required	Nos.	1	938.0	938
20	Erection of metallic pole of following length in cement concrete 1 :3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Above 6.5 meter and upto 8.0 meter Existing poles (Delhi analysis of rates E & M 2016, item 11.3.2, pg 372))	No	1	2,945.0	2945
21	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanized Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	No	5	12,420.0	62100
22	Supplying and fixing of hot dip Galvanized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Nos.	6	2,400.0	14400
23	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.-above 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos	1	620.0	620
24	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos	2	11,782.9	23566
25	Supply and fixing of miniature circuit breaker on exisiting board using necessasary fixing material and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10 KA complete wiring as required confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)	Nos	2	1,547.0	3094
26	Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	m	230	117.0	26910
27	Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insulation and sheathed suitable for working voltage up to 1100 V as per IS-694:1990 and conforming to GTP of Group A. 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	m	42	81.6	3427

Item No.	Description	Unit	Qty.	Unit Rate	Amount
28	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	12	11.3	136
29	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	12	3.2	39
30	Chemical Earthing for grounding, conduits, IC cut outs and other equipments on the meter board by using copper /SS rod with earth enhancing backfill compound which is non corrosive, thermally, conductive, potential, to permissible limits, superior, fault, conductive capacity, non toxic, weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64, SI No.7.23.6)	Kit	2	5,500.0	11000
31	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	80	19.5	1560
32	Fabrication, Supplying, Erection, Testing and Commissioning of Mtrs long polygon high mast with Single 1 Multiple telescopic sections having, (minimum overlap distance of 1.5 times of top section) thickness as per BSEN 10025 grade S 355 JO IASTM A572-50 steel sheet plate for shaft suitable to withstand a wind velocity of 47 m/sec as per IS 875 part 3(as per GA awing). Base plate as per IS 20621 ASTM A572-50. The mast shall be Galvanized in single Hotdip as per BSEN ISO 1461/ASTM A123 with an average 70 microns as per IS 2629, and welded as per BS 5135 Single L-Seam joint. The mast shall have 2way head frame with die cast LM-6 pulleys, stainless steel axle, Phosphorus Bronze bearing bush press-fitted with separate guides for 2 runs of 5mm dia, stainless steel wire rope of AISI 304 grade 7/19-core, (Factor of Safety as per TR no-7). 2.5sqmm EPR insulated PCP sheathed trailing power cable housed inside the bottom shaft of mast with door having locking arrangement. The mast shall have power tool operating on 230V 415V, 50Hz, 1/3 phases reversible geared motor. The mast shall have lantern of 2 segments, suitable dia with max load carrying capacity as per IS 1239. The mast shall be erected on existing RCC footing. The mast shall be supplied with 3mm thick template, lightning arrester of 1.2m length galvanized pipe with top arrow fitted on top of the head frame cover and GLS type aviation twin lamps fitting with wiring complete. (excluding foundation) as per technical data. Electrical SOR 5.17.1	Each	1	120,000.0	120000
33	Supply, installation, testing and commissioning of 120W LED flood light with lamp, driver and all other require accessories to finish the job (Rates as per DMA proceedings and letter no 26031 DMA 86 DEVT 2018-19 dated 29-11-2018)	No	4	8400	33600
Total					479096

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Document : Plumbing cost estimate for Government school

Sr. No	Description	Cost estimate in Rs.
1	Dakshina Kannada Zilla Prathamika High School, Pandeshwara, Ward-46	184976
2	Govt. High School, Urdu, Bunder, Ward 46	268765
3	Govt. Higher Secondary School, Hoigebazar ward-57	301017
4	Lower Primary School, Hoigebazar, Ward-57	235380
5	Gov. Upper Primary School, Neereshwalya, Ward-45	119997
6	Bolar & Bolar (West) School	288470
7	Govt.primary and secondary school Balmatta, Ward-40	473446
8	Govt. Practicing School, Opp. Maidan Road near Railway Station	184976
9	Govt.Primary School, Bastigarden, Ward-41	105903
10	Govt. Women's Pre-university College, Rathabeedi, Car Street	188113
	Grand Total Cost	2351043

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GM TECHNICAL
MSCL MANGALURU**

**MANGAING DIRECTOR
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Dakshina Kannada Zilla Prathamika School, Pandeshwara, Ward-46

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	6	3510	351.00	3,861	23,166
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	5	7091	709.10	7,800	39,001
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	2	3021	302.10	3,323	6,646
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	2	1136	113.60	1,250	2,499
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	12	507	50.70	558	6,692
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	2	435	43.50	479	957
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	6	830	83.00	913	5,478
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	1	756	75.60	832	832
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	6	1078	107.80	1,186	7,115
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	1	798	79.80	878	878

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	15	328	32.80	361	5,412
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	15	308	30.80	339	5,082
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	5	250	25.00	275	1,375
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	35	434	43.40	477	16,709
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	10	190	19.0	209.0	2,090
17	KSRB13-6.4 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	2	513	51.3	564.3	1,129
18	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	96	130	13.0	143.0	13,728
19	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	48	157	15.7	172.7	8,290
20	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	24	196	19.6	215.6	5,174
21	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	77	206	20.6	226.6	17,448
22	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	38	235	23.5	258.5	9,823
	Total						184,976

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Manglore Smart City

BILL OF QUANTITIES-Urdu school bunder road

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage @ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	9	3510	351.00	3,861	34,749
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	7	7091	709.10	7,800	54,601
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	3	3021	302.10	3,323	9,969
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	3	1136	113.60	1,250	3,749
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	17	507	50.70	558	9,481
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	3	435	43.50	479	1,436
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	9	830	83.00	913	8,217
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	2	756	75.60	832	1,663
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	9	1078	107.80	1,186	10,672
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	2	798	79.80	878	1,756

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage @ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	22	328	32.80	361	7,938
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	22	308	30.80	339	7,454
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	7	250	25.00	275	1,925
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	51	434	43.40	477	24,347
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	15	190	19.0	209.0	3,135
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	3	513	51.3	564.3	1,693
18	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	141	130	13.0	143.0	20,163
19	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	71	157	15.7	172.7	12,262
20	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	36	196	19.6	215.6	7,762
21	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	113	206	20.6	226.6	25,606
22	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	57	235	23.5	258.5	14,735
	Total						268,765

EXECUTIVE ENGINEER
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Manglore Smart City

BILL OF QUANTITIES-GHS Hoigebazar

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	10	3510	351.00	3,861	38,610
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	2	4956	495.60	5,452	10,903
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	8	7091	709.10	7,800	62,401
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	3	3021	302.10	3,323	9,969
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	3	1136	113.60	1,250	3,749
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	20	507	50.70	558	11,154
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	3	435	43.50	479	1,436
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	10	830	83.00	913	9,130
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	2	756	75.60	832	1,663
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	10	1078	107.80	1,186	11,858
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	2	798	79.80	878	1,756

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	24	328	32.80	361	8,659
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	24	308	30.80	339	8,131
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	8	250	25.00	275	2,200
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	56	434	43.40	477	26,734
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	16	190	19.0	209.0	3,344
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	3	513	51.3	564.3	1,693
18	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	154	130	13.0	143.0	22,022
19	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	77	157	15.7	172.7	13,298
20	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	39	196	19.6	215.6	8,408
21	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	123	206	20.6	226.6	27,872
22	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	62	235	23.5	258.5	16,027
	Total						301,017

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Manglore Smart City

BILL OF QUANTITIES-Primary School, Hoigebazar, Ward-57

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	8	3510	351.00	3,861	30,888
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	6	7091	709.10	7,800	46,801
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	3	3021	302.10	3,323	9,969
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	3	1136	113.60	1,250	3,749
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- -with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	15	507	50.70	558	8,366
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- -with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	3	435	43.50	479	1,436
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	8	830	83.00	913	7,304
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	2	756	75.60	832	1,663
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	8	1078	107.80	1,186	9,486
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	2	798	79.80	878	1,756

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	19	328	32.80	361	6,855
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	19	308	30.80	339	6,437
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	6	250	25.00	275	1,650
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	44	434	43.40	477	21,006
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	13	190	19.0	209.0	2,717
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	3	513	51.3	564.3	1,693
18	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	120	130	13.0	143.0	17,160
19	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	60	157	15.7	172.7	10,362
20	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	30	196	19.6	215.6	6,468
21	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	96	206	20.6	226.6	21,754
22	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	48	235	23.5	258.5	12,408
	Total						235,380

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Manglore Smart City

BILL OF QUANTITIES-Gov. Upper Primary School, Neereshwalya, Ward-45

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	4	3510	351.00	3,861	15,444
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	3	7091	709.10	7,800	23,400
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	1	3021	302.10	3,323	3,323
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	1	1136	113.60	1,250	1,250
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	8	507	50.70	558	4,462
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	1	435	43.50	479	479
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	4	830	83.00	913	3,652
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	1	756	75.60	832	832
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	4	1078	107.80	1,186	4,743
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	1	798	79.80	878	878

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	10	328	32.80	361	3,608
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	10	308	30.80	339	3,388
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	3	250	25.00	275	825
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	23	434	43.40	477	10,980
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	6	190	19.0	209.0	1,254
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	1	513	51.3	564.3	564
18	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	62	130	13.0	143.0	8,866
19	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	31	157	15.7	172.7	5,354
20	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	16	196	19.6	215.6	3,450
21	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	50	206	20.6	226.6	11,330
22	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	25	235	23.5	258.5	6,463
	Total						119,997

EXECUTIVE ENGINEER
MSCL MANGALURU

GENERAL MANAGER TECHNICAL
MSCL MANGALURU

Manglore Smart City

BILL OF QUANTITIES-Block Education Office and Govt High School, Bolar

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	9	3510	351.00	3,861	34,749
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	2	4956	495.60	5,452	10,903
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	8	7091	709.10	7,800	62,401
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	3	3021	302.10	3,323	9,969
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	3	1136	113.60	1,250	3,749
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	19	507	50.70	558	10,596
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	3	435	43.50	479	1,436
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	10	830	83.00	913	9,130
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	2	756	75.60	832	1,663
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	10	1078	107.80	1,186	11,858
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	2	798	79.80	878	1,756

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	23	328	32.80	361	8,298
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	23	308	30.80	339	7,792
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	8	250	25.00	275	2,200
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	53	434	43.40	477	25,302
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	15	190	19.0	209.0	3,135
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	3	513	51.3	564.3	1,693
18	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	144	130	13.0	143.0	20,592
19	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	72	157	15.7	172.7	12,434
20	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	36	196	19.6	215.6	7,762
21	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	115	206	20.6	226.6	26,059
22	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	58	235	23.5	258.5	14,993
	Total						288,470

EXECUTIVE ENGINEER
MSCL MANGALURU

GENERAL MANAGER TECHNICAL
MSCL MANGALURU

Manglore Smart City

BILL OF QUANTITIES-Balmatta

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	15	3510	351.00	3,861	57,915
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	3	4956	495.60	5,452	16,355
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	13	7091	709.10	7,800	101,401
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4.do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	5	3021	302.10	3,323	16,616
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	5	1136	113.60	1,250	6,248
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	31	507	50.70	558	17,289
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	5	435	43.50	479	2,393
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	16	830	83.00	913	14,608
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	3	756	75.60	832	2,495

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	16	1078	107.80	1,186	18,973
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	3	798	79.80	878	2,633
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	38	328	32.80	361	13,710
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	38	308	30.80	339	12,874
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	13	250	25.00	275	3,575
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	88	434	43.40	477	42,011
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	25	190	19.0	209.0	5,225
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	5	513	51.3	564.3	2,822
18	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	240	130	13.0	143.0	34,320
19	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	120	157	15.7	172.7	20,724
20	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	60	196	19.6	215.6	12,936

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
21	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	192	206	20.6	226.6	43,507
22	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	96	235	23.5	258.5	24,816
Total							473,446

**EXECUTIVE ENGINEER
MSCL MANGALURU**

**GENERAL MANAGER TECHNICAL
MSCL MANGALURU**

Manglore Smart City

BILL OF QUANTITIES-Govt. Practicing School, Opp. Maidan Road near Railway Station

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I. I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	6	3510	351.00	3,861	23,166
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I. I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	5	7091	709.10	7,800	39,001
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I. I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	2	3021	302.10	3,323	6,646
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	2	1136	113.60	1,250	2,499
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	12	507	50.70	558	6,692
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	2	435	43.50	479	957
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	6	830	83.00	913	5,478
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	1	756	75.60	832	832
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	6	1078	107.80	1,186	7,115
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	1	798	79.80	878	878

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	15	328	32.80	361	5,412
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	15	308	30.80	339	5,082
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	5	250	25.00	275	1,375
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	35	434	43.40	477	16,709
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	10	190	19.0	209.0	2,090
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	2	513	51.3	564.3	1,129
18	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	96	130	13.0	143.0	13,728
19	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	48	157	15.7	172.7	8,290
20	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	24	196	19.6	215.6	5,174
21	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	77	206	20.6	226.6	17,448
22	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	38	235	23.5	258.5	9,823
	Total						184,976

EXECUTIVE ENGINEER
MSCL MANGALURU

GENERAL MANAGER TECHNICAL
MSCL MANGALURU

Manglore Smart City

BILL OF QUANTITIES-Govt. Primary school. Bastigarden

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	3	3510	351.00	3,861	11,583
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	3	7091	709.10	7,800	23,400
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	1	3021	302.10	3,323	3,323
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	1	1136	113.60	1,250	1,250
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	7	507	50.70	558	3,904
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	1	435	43.50	479	479
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	4	830	83.00	913	3,652
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	1	756	75.60	832	832
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	4	1078	107.80	1,186	4,743
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	1	798	79.80	878	878

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	8	328	32.80	361	2,886
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	8	308	30.80	339	2,710
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	3	250	25.00	275	825
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	19	434	43.40	477	9,071
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	5	190	19.0	209.0	1,045
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	1	513	51.3	564.3	564
18	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	51	130	13.0	143.0	7,293
19	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	26	157	15.7	172.7	4,490
20	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	13	196	19.6	215.6	2,803
21	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	41	206	20.6	226.6	9,291
22	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	21	235	23.5	258.5	5,429
	Total						105,903

EXECUTIVE ENGINEER
MSCL MANGALURU

GENERAL MANAGER TECHNICAL
MSCL MANGALURU

Manglore Smart City

BILL OF QUANTITIES-Govt. Women's Pre-university College, Rathabeedi, Car Street

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
1	KSRB 11-1 : Providing and fixing white vitreous china clay, water closet Indian type (Squatting pan) of size 580mm with footrests, 100mm s or P trap, 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.1 Pg No 79	Pan	6	3510	351.00	3,861	23,166
2	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C. P brass hinges, rubber buffers. 10 litre low level, PVC flushing cistern (all are approved make) with fittings, C. I I M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.5,Pg No.79	Each	1	4956	495.60	5,452	5,452
3	KSRB 11-1.4: Providing and fixing white vitreous china clay, flat back, lipped front urinal basin of 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I I M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G. I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KPWD 18-19,SI No.12.10,Pg No.80	Unit	5	7091	709.10	7,800	39,001
4	KSRB 11-11 Providing and fixing white vitreous china clay, flat back wash basin with a single 15mm C.P brass pillar tap with C. I I M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 KSRB 11-11.4:do-- of size 550 x 400mm Specification No. KBS 11 KPWD 18-19,SI No.12.26,Pg No.83	Unit	2	3021	302.10	3,323	6,646
5	KSRB 11-15.3 • Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. KPWD 18-19,SI No.12.41,Pg No.84	Unit	2	1136	113.60	1,250	2,499
6	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 100 mm dia bends KPWD 18-19,SI No.12.50,Pg No.85	Each	12	507	50.70	558	6,692
7	KSRB 11-18-2.0 • Providing and fixing sand cast iron soil waste with access door, insertion of rubber washers 3mm thick bolts and nut, with spun yarn soaked in cement slurry and cement mortar 12 including cost of materials, labour, testing complete as per specifications. KSRB 11-18-2.1 • do- - with 75 mm dia bends KPWD 18-19,SI No.12.51,Pg No.85	Each	2	435	43.50	479	957
8	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 100 mm dia KPWD 18-19,SI No.12.89,Pg No.88	Each	6	830	83.00	913	5,478
9	KSRB 11-18-11: Providing and fixing sand cast iron trap of 100mm dia, of self cleaning design with screwed down or hinged grating with or without vent arm including cutting and making good the walls and floors, cost of materials, labour, testing, complete as per specifications Specification No. KBS 11.1.10 KSRB 11-18-17.1 :do- with 75 mm dia KPWD 18-19,SI No.12.90,Pg No.88	Each	1	756	75.60	832	832
10	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 100 x 100 x 100 x 100 mm KPWD 18-19,SI No.12.56,Pg No.86	Each	6	1078	107.80	1,186	7,115
11	KSRB 11-18-4: Providing and fixing sand cast iron soil waste double equal junction of required degree with access door insertion of rubber washers 3mm thick bolts and nuts, including cost of materials, labour, testing complete as per specifications. KBS 11-1.10 KSRB 11-18-4.1 : do- -with access door 75 x 75 x 75 x 75 mm KPWD 18-19,SI No.12.57,Pg No.86	Each	1	798	79.80	878	878

Item No.	Description	Unit	Qty.	Basic Rate	Area weightage@ 10%	Final Rate	Amount
12	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 100 mm dia KPWD 18-19,SI No.12.99,Pg No.89	Nos	16	328	32.80	361	5,773
13	KSRB 11-18-19 • Providing and fixing M.S stays and clamps for sand cast iron pipes of 100mm dia including cost of materials, labour, complete as per specifications. KSRB 11-18-19.1 •do-- with 75 mm dia KPWD 18-19,SI No.12.100,Pg No.89	Nos	16	308	30.80	339	5,421
14	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). do- 10cms x 7.5cms KPWD 18-19,SI No.12.113.1,Pg No.90	Each	5	250	25.00	275	1,375
15	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials, labour charges, HOM and testing complete as per specifications. do- 110 mm dia KPWD 18-19,SI No.12.116.1,Pg No.90	m	36	434	43.40	477	17,186
16	KSRB13-6.1 Providing and fixing in position brass bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No.KBS 13.2.2/13.3 KSRB13-6.1-1do-15 mm dia nominal bore KPWD 18-19,SI No.13.23,Pg No.93	Each	10	190	19.0	209.0	2,090
17	KSRB13-64 : Providing and fixing in position brass ball valve high or low pressure with plastic float of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications. Specification No. KBS KSRB13-6.4-3- do- 25 mm dia nominal KPWD 18-19,SI No.13.42,Pg No.94	Each	2	513	51.3	564.3	1,129
18	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 15mm nominal OD Pipe KPWD 18-19,SI No.13.85.1,Pg No.98	m	99	130	13.0	143.0	14,157
19	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 20mm nominal OD Pipe KPWD 18-19,SI No.13.85.2,Pg No.98	m	50	157	15.7	172.7	8,635
20	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes JOinting of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) 25mm nominal OD Pipe KPWD 18-19,SI No.13.85.3,Pg No.98	m	25	196	19.6	215.6	5,390
21	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 15mm nominal OD Pipe KPWD 18-19,SI No.13.86.1,Pg No.99	m	79	206	20.6	226.6	17,901
22	Providing and fixing Chorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1 00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of JOints complete. (Concealed work including cutting chases and making good walls) 20mm nominal OD Pipe KPWD 18-19,SI No.13.86.2,Pg No.99	m	40	235	23.5	258.5	10,340
Total							188,113

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