## **Project Name: Manglore Smart City**

## **Grand Summary for Priority Road DPR 3**

Sr. No.	Description	Cost In INR
1	Road and Other Works	34,37,96,669
2	Street Lighting	48,82,426
3	Landscape Work	3,55,444
	Sub Total	34,90,34,539
	GST @ 12% on SOR Base Items -Constrction Cost	2,94,63,095
	GST @ 18% on Market Rate Items -Constrction Cost	1,54,23,291
	Provision for Third Party Damages and Maintenance at 1 st Year(DLP)	30,95,630
	GST @ 12% on SOR Base Items -Constrction Cost	2,24,284
	GST @ 18% on Market Rate Items -Constrction Cost	1,69,240
	Maintenance Cost of 2nd,3rd and 4th Year	127,08,314
	GST @ 12% on SOR Base Items -Constrction Cost	12,12,260
	GST @ 18% on Market Rate Items -Constrction Cost	2,30,869
	Escalation and Tender Premium at 10%	3,49,03,454
	Add 3% Contengency	1,04,71,036
	Miscellaneous and Rounding off	63,988
	Grand Total	45,70,00,000

EXECUTIVE ENGINEER MSCL MANGALURU

GENERAL MANAGER TECHNICAL MSCL MANGALURU

MANAGING DIRECTOR
MSCL Mangaluru

Name of the Work :- Mangalore Smart City

1.0 BOQ of Road and Other Work for Priority Road DPR 3

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
1.00	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.(RA attached)	Sqm	11959.14	74.98	8,96,696	
2.00	KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges, loading and unloading for lead 5km-Extra) (KSRRB 18-19, Page No 140, SI No : 18.47)	Cum	575.10	1001.90	5,76,193	
3.00	KSRRB M200- <b>Dismantaling of kerb Stone</b> and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202.  (KSRRB 18-19,Page No.141,S.I.No.18.49)	Rmt	3946.73	13.20	52,097	
4.00	KSRRB M200-13.1. <b>Dismantling of existing structures</b> like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSRRB 18-19,18.20,Page No.139)	Cum	2320.47	429.00	9,95,481	
5.00	KSRRB M200-17.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. v)Steel work in all types of Sections upto a Height of 5 m above plinth level excluding Cutting of Rivet— B. Excluding dismembering. (KSRRB 18-19,18.34,Page No.140)	MT	5.88	2082.30	12,244	
6.00	KSRRB 300-50. <b>Scarifying bituminous course</b> 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Section 5.(KSRRB 18-19, SI No.19.56,Pg No.146)	Sqm	9497.90	42.90	4,07,460	
7.00	KSRRB 300-46. Scarifying by mechanical means stone metal crust 50mm to 100mm thick by along with 20mm premix carpet I surface dressing and stacking of old serviceable materials including cost of all labour charges, HOM complete as per specifications.  MORTH I Chapter 3.(KSRRB 18-19,SI No.19.52,Pg	Sqm	19427.80	42.90	8,33,453	
8.00	KSRRB M200-12.1. <b>Dismantling of existing structures</b> like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (KSRRB 18-19,Page No 137,SI No : 18.23)	Cum	45.90	386.10	17,722	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
9.00	Removing B.S slab of drain and stacking.(KSRB 18-19,5.32,Page No.27)	Sqm	1091.28	107.80	117,640	
10.00	KSRRB M800- <b>Permanent type barricade in construction zone</b> KSRRB M800-44.1. Construction of a permanent type barricade made of steel components, 1.5 m high from road level, fitted with 3 horizontal rails 200 mm wide and 4 m long on 50 x 50 x 5 mm angle iron vertical support, painted with yellow and white strips, 150 mm in width at an angle of 45°, complete as per IRC:SP:55-2014 complete as per specifications . A. With steel components(KSRRB 18-19,Page No 187,SI No : 24.45)	Each	250.00	4,211.90	10,52,975	
11.00	KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 5.00Km and complete as per specifications.  MORTH specification No.301 (KSRRB 18-19,Page No 143,SI No : 19.14)	Cum	40414.00	56.36	22,77,733	
12.00	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.(KSRB 18-19,SI No.2.11,Pg. No.7)	Cum	10225.03	132.00	13,49,704	
13.00	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.  MORTH I Chapter 3 (KSRRB 18-19,SI No.19.64,Pg. No.147)	Sqm	42323.06	6.60	2,79,332	
14.00	KSRB 4-1.6; Providing and laying in position plain cement concrete of M 15 Grade with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 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 (KSRB 18-19,P.No.13, SI.No. 4.6)	Cum	1028.40	6,490.00	66,74,316	
15.00	KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-1) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (SI.No.20.4 of KPWD SR 2018-19)	Cum	7658.91	2,382.60	1,82,48,119	
16.00	KSRB 4.2.1 : Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (KSRB 18-19,Page No 14,SI No :4.10)	Cum	6639.72	6,817.80	4,52,68,283	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
17.00	KSRB 4.6.1 Providing and removing <b>centering</b> , <b>shuttering</b> , <b>strutting</b> , <b>propping</b> etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (KSRB 18-19,Page No 16,SI No : 4.28)		46502.30	289.30	1,34,53,115	
18.00	KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinary complete as per specifications. Specification No. KBS4.6.3. do with TMT bars Fe500 (KSRB 18-19, Page No 18, SI No : 4.46.2)		528.58	77,860.20	4,11,55,345	
19.00	KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305 (KSRB 18-19,Page No 146,SI No : 19.62 & 17.4)	Cum	3253.53	620.62	20,19,204	
20.00	KSRRB M600-1.Providing and Constructing dry lean cement concrete M15 mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications.  Clause 601of MORTH V Revision and IS 456 Table-5-do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor.	Cum	2751.17	4,452.80	1,22,50,410	
21.00	KSRRB 18-19,Page No 174,SI No: 22.1.1)  KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per MORTH specifications Clause 601. (RA attached)		1453.95	4,048.00	58,85,593	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
22.00	KSRRB M600-2. Providing and Constructing unreinforced, dowel jointed, plain cement Pavement Quality concrete for pavements using Grade concrete M40 having Flexural strength not less than 4.50 Mpa over a prepared base with OPC, coarse aggregate at 0.64 cum, fine aggregates at 0.36 cum, Coarse and fine aggregate conforming to IS:383-2016 and Table 600-3 of MORTH V Revision, with Superplastizer at 3 Its conforming to IS 9103-2008. loading materials to batch mix plant by front end loader, mixed in a cement concrete batch mix plant as per approved mix design, transported to site in transit truck agitator 5 cum capacity, laid with Paver, compacted and finished in a continuous operation as per IRC-15 including cost for providing of contraction, expansion, co nstruction and longitudinal joints, joint filler, separation membrane of impermiable plastic sheet of 125 micron, groove cutting, sealant primer joint sealent, debonding strip, dowel bars at 9 kg/cum, tie rods at 1.15 kg/cum, admixtures as approved, curing compound, finishing to lines and grades,	Cum	5008.36	6,341.50	3,17,60,515	
23.00	Providing and placing <b>joint sealant compound</b> of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower and as shown on drawing and as per MORTH specifications clause 602. (Non SOR Item)		8,181.52	115.00	9,40,874	
24.00	KSRRB 3000 <b>Repair of Joint Grooves</b> with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)		8,181.52	364.10	29,78,890	
25.00	Providing and laying at or near ground level factory made <b>Median kerb stone of M-20</b> grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per drawing. (Precast C.C. kerb stone shall be approved by Engineer-incharge). (RA Attached)		30.60	19,479.70	5,96,079	
26.00	Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC M20 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (RA Attached)	Cum	287.64	17,030.30	48,98,662	
27.00	Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC M20 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (RA Attached)		121.23	17,030.30	20,64,508	
28.00	KSRRB 800-1. <b>Painting two coats</b> after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per MORTH specifications section 8. (KSRRB 18-19,Page No 180,SI No : 24.1)	Sqm	1,121.88	88.00	98,726	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
29.00	P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	412.00	917.00	3,77,804	
30.00	Providing and Fixing Recessed Inception chamber cover - size: (600 x 450 )mm Material	Nos.	1,155.00	3,500.00	40,42,500	
31.00	KSRRB M300- Wrought iron and mild steel welded work KSRRB M300-18. Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, gratings with grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately complete as per specifications.(KSRB 18-19,SI.No.19.97,Pg.No.150)	Quintal	463.20	7,905.70	36,61,920	
32.00	KSRB 12-8.2 : Constructing brick masonry inspection chamber <b>500x700mm</b> , and <b>450mm depth</b> , (clear inside dimension) for pipeline with one or two inlets, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal, foundation concrete M 5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finished smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS (P.No. 76/I.No.11.52 of PWD SR 2018-19)	Nos.	415.00	9,125.60	37,87,124	
33.00	Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	Rmt	1,155.00	301.70	3,48,464	
34.00	KSRB 11-18-17.1: 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 SR 2018-19,P.No.88, SI.No.12.89)	Nos.	1,155.00	913.00	10,54,515	
35.00	KSRRB M800-29.3. Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case-III: Triple row for three utility services.  (KSRRB 2018-19,Pg No 186,SI.No.24.36)	Rmt	713.00	5,524.20	39,38,755	
36.00	Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)	Rmt	21,682.00	1,971.80	4,27,52,568	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
37.00	Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	26,487.00	1,068.90	2,83,11,954	
38.00	Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	3,948.00	1,003.00	39,59,844	
39.00	Providing and Fixing Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	4,213.00	1,947.00	82,02,711	
40.00	Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	4,087.60	601.30	24,57,874	
41.00	Providing and laying heavy duty cobble stones <b>60mm thick</b> , using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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. (KSRB 18-19, Pg No 103,SI No: 14.6)	Sqm	15,128.55	1,161.60	1,75,73,324	
42.00	Providing and laying heavy duty <b>Tactile Tiles</b> (Direction and Stop tiles-300 x 300 mm) 40mm 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 30mm 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. (Non SOR Item)	Sqm	1,214.52	912.00	11,07,642	
43.00	Providing and laying heavy duty <b>cobble stones 75mm thick</b> , using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19,Page No 103,SI No: 14.7)	Sqm	8,955.26	1,225.40	109,73,776	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
44.00	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (KSRRB 18-19,S.I.No.21.17.2,Page No.160)		48.38	8,622.90	4,17,133	
45.00	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4 % VG-40 Bitumen (KSRRB 18-19,S.I.No.21.22.6,Page No.162)	Cum	12.90	9,637.10	1,24,319	
46.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary	Nos.	109.00	3,862.10	4,20,969	
47.00	10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  900MM Equilateral Triangle-TYPE XI (KSRRB 18-19,Page No 180,SI No : 24.2.1)					
48.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary		0.00	5,453.80	,0	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
	10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  900MM Octagon Stop Board-TYPE XI (KSRRB 18-19,Page No 180,SI No : 24.2.6)					
49.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier. 600MM Circle-TYPE XI (KSRRB 18-19,Page No 180,SI No : 24.2.3)	Nos.	32.00	3,429.80	1,09,754	
50.00	Direction and Place Identification Signs upto 0.9 sqm Size Board: Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing.  KSRRB 18-19,Pg No.180 SI No.24.3	Sqm	26.10	7619.70	1,98,874	
51.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, supply and installation of retro-reflectorised cautionary, mandatory and informatory signboards made out of cube corner micro prismatic grade sheeting confirming to 600x800 MM type XI standards of IRC :67:2012 specifications & fixed over 4 mm thick aluminium composite panel sheet having minimun 0.30 thick aluminium skin on both sides & fixed over a support frame of 25x25x3 mm MS angle and mounted on 75mm dia OR 75x75x6mm Mild steel angle of total height 2.70m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60 cm below ground level. The sign post should be painted with one coat of red oxide paint and white colour with brands of 30 cm height alternatively firmly fixed to the ground by means of foundation with	Nos.	3.00	4453.90	13,362	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
	M20 grade cement concrete of 45 cm x45 cm x 60 cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by engineer in charge. 10 years warranty for retro reflective sheeting from the original sheeting manufacturer as per clause 6.9 in IRC 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  KSRRB 18-19,Pg No.182,SI No.24.2.4					
52.00	KSRRB M800 Road markers / Road stud KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 1DO mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer  Road Marking with hot applied Thermoplastic	Nos.	1138.00	317.90	3,61,770	
53.00	Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (KSRRB 18-19,Page No 182,SI No : 24.15)	Sqm	3337.67	471.90	15,75,045	
54.00	Providing and Fixing of Bus shelter(on prepared foundation) made of SS 304 frame work with brush steel finish, Galvanised Aluminium powder coated roofing and electronic circuit to control its lighting. The seating shall be made of SS 304 tubular sections for seat and back rest. each unit size of 4500mm x 600mm with a minimum backrest support of 450mm. Bus shelter shall have the Side Display board to have 1100X400mm Electronic display. The electronic display board to be of LED Scrolling type with Oval, 4.3 x 5.1mm dia. Diffused. LED's having Amber colour. Dual bin system should be adopted one for recycle waste & other for dry waste. Each bin shall be with minimum capacity of 70Ltrs. Interactive Information Panel-display equipment with information area of 1400 x 1400 and touch screen LED display panel of area not less than 600-900mm with integrated 8mm toughened glass. Advertisement Area 2 nos of size 4500mm x 1650mm and 2100mm x 2000mm shall be integrated within the design of the Bus Shelter. This shall be backlit type with SS box framing sides and back complete. Provision for	Nos.	2.00	1500000.00	30,00,000	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
55.00	Providing & installing of <b>E- toilet</b> with Super structure of the electronic toilet to have asthetic ambience with inner room size 1.2 x 0.8 x 2.4 (LXWXH)meters and Size of electronic toilet overall size in meters 2.30x1.25x2.80 (LXWXH) Total area 35 Sft. with Built-acess controlled main door and side walls made of SS Grade 304,Toilet floor and closet are to be stainless steel of grade 304.E-Toilet shall have Built-in water tank with minimum 225 Lit capacity and Acess controll using coin validator for entering the unit based on automatic payment collection mechanism exit from the unit should be manual.Automatic lights inside the unit with gloves on opening the door.E-Toilet shall be Automatic flushing system which includes Automatic Pre flush cleaning before use,Automatic closet washing mechanism after use and Automatic platform cleaning mechanism programmed after specific numbers.In addition to these flush switch is to be provided for manual operation.Standard features should include heath faucet,exhaust fan and cloth hanger.		2.00	5,75,000	11,50,000	
	The E-Toilet shall have Alert to users-different indication on 'ready to use',busy are to be provided in the unit also with Voice guidence in the unit for users. Web enabled support-GPRS based Real time data to be provided from the unit through web for knowing the health status like number of users per day and coins collected. E-toilet shall have Modular and portable design enabling easy assembling and installation at site. Call ceneter and web portal facilities for registering complience and tracking usage, coin collection etc. Status display in LED, Printed instruction stickers are to be provided. For Advertisment purpose space for advertisement dispaly to be povided on the exterior of the unit for income generation and sustainability. Backup power facility like UPS is to be provided to supplement upto 30 Min Base of the unit to be placed on a suitable concrete structure with a ashthetic finish. (Non SOR Item)					
56.00	KSRB 6-2.3: Providing and constructing burnt brick masonry with approved quality of non-modular bricks of standard size of class designation 5.0Newton per sqmm (table moulded) with cement mortar 1:6 for basement and superstructu/re including cost of materials, labour charges, scaffolding, curing complete as per specifications.  Specification No. KBS 6.2. (KSRB 18-19,Page No.29,SI.No.6.7)	Cum	30.14	8576.70	2,58,495	
57.00	KSRB15-3.8: Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering,: Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.(KSRRB 18-19,Page No.116,SI No.15.16)	Sqm	90.72	288.20	26,146	
58.00	Providing and fixing 450mm wide X 600mmX 20mm thk.RIVERWASHED BLACK GRANITE CLADDING on surface of seating as directed by architect (Non SOR Item)	Sqm	50.40	3527.00	1,77,761	
59.00	Supply and Fixing of <b>Traffic signal Straight pole</b> of 6 mtr, inner dia 100 mm from resistant to peeling with base plate size of (LXWXT) 200mm X200mmX6mm painted with redoxide and double coat with synthetic enamel paint of yellow colour assembly G.I., class B, as per technical specification (NON SOR Item)	Nos.	2.00	18,691	37,382	

Sr. No.	Specification	Unit	Qty.	Rate	Amount	Remarks
60.00	Supply and fixing of Traffic signal Cantilever pole Class B having inner diameter of 100 mm or more with a height of 6m including extension arm assembly having outer diameter of 75mm with arm span of 4 mtr length and base plate of size 300mm X 300mm with thickness of 6 mm welded at the bottom of the pole base as per technical specification & drawings. (NON SOR Item)	Nos.	2.00	52,850	1,05,700	
61.00	Supply and fixing of 300 mm dia – single source – LED retrofit - <b>Red (blow)</b> as per Specification (NON SOR Item)	Nos.	4.00	11,082	44,328	
62.00	Supply and fixing of 300 mm dia – single source – LED retrofit - <b>Amber (blow) as per</b> Specification (NON SOR Item)	Nos.	4.00	11,082	44,328	
63.00	Supply and fixing of 300 mm dia – single source – LED retrofit - <b>Green (arrow/U- Turn)</b> EN-12368 as per Specification (NON SOR Item)	Nos.	4.00	13,973	55,892	
64.00	Supply and fixing of 300 mm dia – single source – LED retrofit - <b>Red (ped. standing)</b> EN-12368 as per Specification (NON SOR Item)	Nos.	4.00	11,082	44,328	
65.00	Supply and fixing of 300 mm dia – single source – LED retrofit - <b>Green (ped.walking)</b> EN-12368 as per Specification (NON SOR Item)	Nos.	4.00	13,973	55,892	
66.00	Supply and fixing of 300 mm dia - No Right Turn/No Left turn/No Straight/No 'U' Turn aspects by using UV stabilized ink on face plate EN-12368 as per Specification (NON SOR Item)	Nos.	4.00	6,196	24,784	
67.00	Providing and fixing of <b>S.S. Bollards(SS304)</b> on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	302.00	4,500	13,59,000	
68.00	Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	4.16	100,000	4,16,000	
69.00	Providing and Fixing SS 304 Outdoor Dustbin(Pivoted Type and Mounted on SS Poles) of 55 liters capacity all complete to the satisfaction of the Engineer in charge. (NON SOR Item)	Nos.	111.00	7,500	8,32,500	
70.00	Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead of 5 km Item No 17.4 KSRRB M100-4.1-Earth	Cum	30,188.97	90.86	27,42,970	
71.00	Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead of 5km Item No 17.4 KSRRB M100-4.1-Debris	Cum	5,342.75	91.30	4,87,793	
			Total	_	34,37,96,669	

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

Name of the Work :- Mangalore Smart City

1.1 Measurement Sheet of Road and Other Work for DPR 3

o			ork for DF		_		<u> </u>
Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Road and Junction Payment at	nd Other	Works		1		
1	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.(RA attached)						
	Pandeshwar Road Footpath						
	RHS Footpath( RCC Panels + Paver Blocks)	Sam	1	40.50	0.47		19.08
	Ch.0.00 to 40.0 Ch.40.0 to 146.0	Sqm Sqm	1	40.59 104	0.47 0.27		28.08
	LHS Footpath ( RCC Panels + Paver Blocks)		·		0.2.		20.00
	Ch.30.0 to Ch.65.0 ( Curved Footpath)	Sqm	1	45.88	1.69		77.54
	Ch.65.0 to 83.0 (Trapezoidal Area) Ch.83.0 to Ch. 146.0	Sqm Sqm	1	18.16 62.52	4.24 1.48		76.94 92.53
	Light House Hill Road-LHS	Oqiii	'	02.32	1.40		92.33
	Paver Block on Footpath						
	Ch.0.0 to Ch.175.0	Sqm	1	161.50	1.42		229.33
	Ch.175.0 to Ch.250.0 Ch.250.0 to Ch.350.0	Sqm Sqm	1	78.00 138.00	2.18 1.79		170.04 247.02
	Cross Road at Ch.470.0	Sqm	1	25.00	0.82		20.50
	Ch.480.0 to Ch.500.0	Sqm	1	17.81	1.76		31.35
	Ch.500.0 to Ch.530.0	Sqm	1	29.00	8.01		232.29
	Ch.530.0 to Ch.620.0 Ch.650.0 to Ch.660.0	Sqm Sqm	1	90.00 11.24	1.46 5.04		131.40 56.65
	Ch.660.0 to Ch.800.0	Sqm	1	144.50	1.16		167.62
	Paver Block on Carriageway						
	Ch.0.0 to ch.110.0	Sqm	1	98.00	3.33		326.34
	Ch.110.0 to Ch.265.0 Ch.240.0 to Ch.290.0	Sqm Sqm	1	159.00 55.00	4.24 6.25		674.16 343.75
	Ch.290.0 to Ch.320.0	Sqm	1	32.50	1.67		54.28
	Ch.320.0 to Ch.340.0	Sqm	1	16.86	5.465		92.14
	Ch.350.0 to Ch.480.0	Sqm	1	130.17	6.86		892.97
	Ch.520.0 to Ch.730.0 Light House Hill Road-RHS	Sqm	1	210.00	4.56		957.60
	Paver Block on Footpath						
	Ch.30.0 to Ch.110.0	Sqm	1	84.85	2.61		221.46
	Ch.110 to Ch.168.0	Sqm	1	57.68	2.01		115.94
	Ch.350.0 to Ch.615.0 Ch.615.0 to Ch.765.0	Sqm Sqm	1	262.69 150.00	2.99 1.81		785.43 271.50
	Paver Block on Carriageway	Oqiii	'	100.00	1.01		0.00
	Ch.35.0 to Ch.100.0	Sqm	1	66.22	1.93		127.80
	Ch.110.0 to Ch.170.0	Sqm	1	65.50	2.47		161.79
	Ch.170.0 to Ch.205.0  KMC Merkera Road-LHS	Sqm	1	41.33	3.87		159.95
	Paver Block on Footpath						
	Ch.0.0 to Ch.40.0	Sqm	1	16.73	0.63		10.54
	Ch.40.0 to Ch.170.0	Sqm	1	130.00	1.82		236.60
	Ch.170.0 to Ch.420.0 Ch.420.0 to Ch.480.0	Sqm Sqm	1	250.00 60.00	1.64 0.95		410.00 57.00
	Ch.480.0 to 670.0	Sqm	1	190.00	2.63		499.70
	KMC Merkera Road						
	Paver Block on Carriageway(Consider 30% of Qty.) Ch.40.0 to Ch.90.0 (Triangular Shape)	C	0.5	46.16	0.00	0.30	40.00
	Ch.90.0 to Ch.30.0 (Thangular Shape)	Sqm Sqm	0.5	230.00	2.69 3.3	0.30	18.63 227.70
	Ch.320.0 to Ch.500.0	Sqm	1	180.00	2.87	0.30	154.98
	Ch.500.0 to Ch.610.0	Sqm	1	110.00	3.76	0.30	124.08
	Ch.610.0 to Ch.660.0	Sqm	1	50.00	1.51	0.30	22.65
	KMC Merkera Road-RHS Paver Block on Footpath						
	Ch.0 to Ch.85.0	Sqm	1	85.00	1.78		151.30
	Ch.100.0 to Ch.240.0	Sqm	1	140.00	1.79		250.60
	Ch.240.0 to Ch.700.0 Ch.0.0 to Ch.10.0	Sqm	1	460.00	2.28		1048.80
	Ch.10.0 to Ch.90.0	Sqm Sqm	1	31.23 71.84	0.53 1.01		16.55 72.56
	Ch.90.0 to Ch.640.0	Sqm	1	550.00	3.44		1892.00
		Sqm			Total Qty		11959.14
	Consider 60mm Paver Block	Cum	1	1			717.55
	KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges, loading and unloading for lead 5km-Extra) (KSRRB 18-19, Page No 140, SI No: 18.47)						
	Rosario Road-Part II-Damaged concrete road Ch.500.0 to Ch.770.0	Cum	1	270	0.8	0.3	64.80

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Light House Hill Road Ch. 0.0 to Ch.210.0	Cum	1	210	8.1	0.3	510.30
		Cum		2.0	Total Qty		575.10
	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26.						
3	Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH						
	Specification No.202. (KSRRB 18-19,Page No.141,S.I.No.18.49)						
	Pandeshwar Road Footpath						
	RHS Footpath( RCC Panels + Paver Blocks)						
	Ch.0.00 to 40.0	Rm	1	40.59			40.59
	Ch.40.0 to 146.0  LHS Footpath ( RCC Panels + Paver Blocks)	Rm	1	104			104.00
	Ch.30.0 to Ch.65.0 ( Curved Footpath)	Rm	1	45.88			45.88
	on.oo.o to on.oo.o ( ourved r ootpatii)	TXIII	,	40.00			40.00
	Ch.65.0 to 83.0 (Trapezoidal Area)	Rm	1	18.16			18.16
	Ch.83.0 to Ch. 146.0	Rm	1	62.52			62.52
	Rosario Church Road-Part I(RHS)						
	Ch.90.0 to Ch.130.0 Ch.135.0 to 160.0	Rm Rm	1	43.45 26.61			43.45 26.61
	Ch.167.0 to 200.0	Rm	1	38.21			38.21
	Ch.210.0 to 330.0	Rm	1	120			120.00
	Ch. 330.0 to 404.0 Ch.404.0 to 407.0	Rm	1	74			74.00
<del>                                     </del>	Ch.404.0 to 407.0 Ch.407.0 to Ch.500.0	Rm	T	8.24			8.24
	Rosario Church Road-Part II(LHS)						
	Ch.730.0 to Ch.860.0	Rm	1	130			130.00
	Light House Hill Road-LHS Paver Block on Footpath						
	Ch.0.0 to Ch.175.0	Rm	1	161.5			161.50
	Ch.175.0 to Ch.250.0	Rm	1	78			78.00
	Ch.250.0 to Ch.350.0	Rm	11	138			138.00
	Cross Road at Ch.470.0 Ch.480.0 to Ch.500.0	Rm Rm	1	25 17.81			25.00 17.81
	Ch.500.0 to Ch.530.0	Rm	1	29			29.00
	Ch.530.0 to Ch.620.0	Rm	1	90			90.00
	Ch.650.0 to Ch.660.0 Ch.660.0 to Ch.800.0	Rm Rm	1	11.24 144.5			11.24 144.50
	Light House Hill Road-RHS	IXIII		144.5			144.50
	Paver Block on Footpath						
	Ch.30.0 to Ch.110.0 Ch.110 to Ch.168.0	Rm Rm	1	84.85 57.68			84.85 57.68
	Ch. 110 to Ch. 166.0 Ch.350.0 to Ch.615.0	Rm	1	262.687			262.69
	Ch.615.0 to Ch.765.0	Rm	1	150			150.00
	KMC Merkera Road-LHS						
	Paver Block on Footpath Ch.0.0 to Ch.40.0	Rm	1	16.73			16.73
	Ch.40.0 to Ch.170.0	Rm	1	130			130.00
	Ch.170.0 to Ch.420.0	Rm	1	250			250.00
	Ch.420.0 to Ch.480.0 Ch.480.0 to 670.0	Rm Rm	1	60 190			60.00 190.00
	KMC Merkera Road-RHS	TXIII		130			130.00
	Paver Block on Footpath						
	Ch.0 to Ch.85.0 Ch.100.0 to Ch.240.0	Rm Rm	1	85 140			85.00 140.00
	Ch. 100.0 to Ch.240.0 Ch.240.0 to Ch.700.0	Rm	1	460			460.00
	Ch.0.0 to Ch.10.0	Rm	1	31.23			31.23
	Ch.10.0 to Ch.90.0	Rm	1	71.84			71.84
	Ch.90.0 to Ch.640.0	Rm Rm	1	550	Total Qty		550.00 <b>3946.73</b>
						•	00 10110
	KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges,						
	retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever						
	necessary, sorting the dismantled material, disposal of unserviceable						
4	material and stacking the serviceable material with all lifts complete as per						
	specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSRRB 18-19,18.20,Page No.139)						
	S 20 1017111 Opcomound 11 10. 202 (NONNO 10-13, 10.20, Fage 140. 139)						
	Dan daabuuan Daad						
	Pandeshwar Road SWD-RHS						
	Base						
	Ch.0.0 to 145.0	Cum	1	145.00	1.50	0.10	21.75
	Wall Ch.0.0 to 145.0	Cum	2	145.00	0.15	1.00	12 50
	Cn.0.0 to 145.0 Slab	Guill		145.00	0.15	1.00	43.50
	Ch.0.0 to 145.0	Cum	1	145.00	1.00	0.10	14.50
	SWD-LHS						
<u> </u>	Base			l			

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Ch.30.0 to 145.0	Cum	1	124.00	1.50	0.10	18.60
	Wall Ch.30.0 to 145.0	Cum	2	124.00	0.15	1.00	37.20
	Slab						
	Ch.0.0 to 145.0 Septic Tank Like structure at RHS	Cum	1	124.00	1.00	0.10	12.40
	Bottom	Cum	1	12.30	3.30	0.15	6.09
	Long Sides	Cum Cum	2	12.30 3.30	0.20	2.00	9.84 2.64
	Short Side Slab	Cum	1	12.00	0.20 3.00	2.00 0.20	7.20
	Rosario Church Road-Part I(RHS) SWD						
	Base Ch.90.0 to Ch.500.0	Cum	1	410.00	1.50	0.15	92.25
	Wall						
	Ch.90.0 to Ch.500.0	Cum	2	410.00	0.20	2.00	328.00
	Rosario Church Road-Part II(LHS) SWD						
	SWD-Base Ch.740.0 to Ch.860.0	Course	1	400.00	4.50	0.40	40.00
	SWD-Wall	Cum	ı	120.00	1.50	0.10	18.00
	Ch.740.0 to Ch.860.0	Cum	1	120.00	0.15	1.00	18.00
	SWD-Slab Ch.740.0 to Ch.860.0	Cum	1	120.00	1.30	0.15	23.40
	Bunder Road	Juili		.20.00	1.00	0.13	
	LHS						
	SWD-Base Ch.0.0 to Ch.180.0	Cum	1	180.00	1.30	0.10	23.40
	SWD-Wall		·				
	Ch.0.0 to Ch.180.0 SWD-Slab	Cum	2	180.00	0.15	0.40	21.60
	Ch.0.0 to Ch.180.0	Cum	1	180.00	1.10	0.15	29.70
	LHS						
	SWD-Base Ch.350.0 to Ch.380.0	Cum	1	30.00	1.30	0.10	3.90
	SWD-Wall						
	Ch.350.0 to Ch.380.0 SWD-Slab	Cum	1	30.00	0.15	0.50	2.25
	Ch.350.0 to Ch.380.0	Cum	1	30.00	1.10	0.15	4.95
	LHS						
	SWD-Base Ch.460.0 to Ch.1330.0	Cum	1	870.00	1.40	0.10	121.80
	SWD-Wall		•				
	Ch.460.0 to Ch.1330.0 SWD-Slab	Cum	1	870.00	0.15	0.60	78.30
	Ch.460.0 to Ch.1330.0	Cum	1	870.00	1.20	0.15	156.60
	RHS						
	SWD-Base Ch.450.0 to Ch.570.0	Cum	1	120.00	1.30	0.10	15.60
	SWD-Wall						
	Ch.450.0 to Ch.570.0 SWD-Slab	Cum	1	120.00	0.15	0.50	9.00
	Ch.450.0 to Ch.570.0	Cum	1	120.00	1.10	0.15	19.80
	RHS SWD-Base						
	Ch.560.0 to Ch.750.0	Cum	1	190.00	1.30	0.10	24.70
	SWD-Wall						
	Ch.560.0 to Ch.750.0 SWD-Slab	Cum	1	190.00	0.15	0.70	19.95
	Ch.560.0 to Ch.750.0	Cum	1	190.00	1.10	0.15	31.35
	RHS SWD-Base						
	Ch.770.0 to Ch.810.0	Cum	1	40.00	1.30	0.10	5.20
	SWD-Wall	Cure	4	40.00	0.45	0.70	4.00
	Ch.770.0 to Ch.810.0 SWD-Slab	Cum	1	40.00	0.15	0.70	4.20
	Ch.770.0 to Ch.810.0	Cum	1	40.00	1.10	0.15	6.60
-	RHS SWD-Base	1					
	Ch.820.0 to Ch.990.0	Cum	1	170.00	2.30	0.10	39.10
	SWD-Wall	C	4	170.00	0.45	4.00	20.00
	Ch.820.0 to Ch.990.0 Light House Hill Road	Cum	1	170.00	0.15	1.20	30.60
	LHS						
-	SWD-Base Ch.0.0 to Ch.320.0	Cum	1	320.00	1.70	0.10	54.40
	SWD-Wall						
	Ch.0.0 to Ch.320.0	Cum	1	320.00	0.15	0.70	33.60
	SWD-Slab Ch.0.0 to Ch.320.0	Cum	1	320.00	1.50	0.15	72.00
	Light House Hill Road	20111		0_0.00		0.10	. 2.00
	LHS						
	SWD-Base Ch.320.0 to Ch.770.0	Cum	1	450.00	1.30	0.10	58.50
-	-	•					

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	SWD-Wall Ch.320.0 to Ch.770.0	Cum	1	450.00	0.15	0.60	40.50
	SWD-Slab Ch.320.0 to Ch.770.0	Cum	1	450.00	1.10	0.15	74.25
	G1.320.0 to G1.770.0	Cuiii	'	430.00	1.10	0.13	74.23
	KMC Merkera Road						
	SWD-Base						
	Ch.0.0 to Ch.800.0 SWD-Wall	Cum	1	800.00	1.80	0.10	144.00
	Ch.0.0 to Ch.800.0	Cum	1	800.00	0.15	1.20	144.00
	SWD-Slab Ch.0.0 to Ch.800.0	Cum	1	800.00	1.60	0.15	192.00
		Odiii		000.00	1.00	0.10	102.00
	KMC Merkera Road RHS						
	SWD-Base						
	Ch.0.0 to Ch.800.0 SWD-Wall	Cum	1	450.00	1.30	0.10	58.50
	Ch.0.0 to Ch.800.0	Cum	1	450.00	0.15	0.60	40.50
	SWD-Slab Ch.0.0 to Ch.800.0	Cum	1	450.00	1.10	0.15	74.25
	On. 0.0 to On. 000.0	Odili		400.00	1.10	0.10	74.20
	Extension of Bibi Alabi Road RHS						
	SWD-Base						
	Ch.0.0 to Ch.800.0 SWD-Wall	Cum	1	100.00	1.10	0.10	11.00
	Ch.0.0 to Ch.800.0	Cum	1	100.00	0.15	0.50	7.50
	SWD-Slab Ch.0.0 to Ch.800.0	Cum	1	100.00	0.90	0.15	13.50
	Cri.0.0 to Cri.600.0	Cum	I	100.00	Total Qty		2320.47
	KSRRB M200-17.2. Dismantling of existing structures like culverts, bridges,						
5	concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. v)Steel work in all types of Sections upto a Height of 5 m above plinth level excluding Cutting of Rivet– B. Excluding dismembering. (KSRRB 18-19,18.34,Page No.140)						
	Ch.370.0 to Ch.460.0						
	75mm Pipe -Horizontal 75mm Pipe -Vertical	Rm Rm	3 45	90 1.2			270.00 54
	75mm Pipe - Vertical	NIII	45	1.2			324.00
			Rm 324.00	<b>Kg/Rm</b> 5.71	<b>Kg</b> 1850.04		MT 1.85
	Median Railing		Rm	Kg/Rm	Kg		1.05
	Ch.370.0 to Ch.531.0	Rm	161	25	4025		4.03
						Total	5.88
	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along						
6	with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Section 5.(KSRRB 18-19, SI No.19.56,Pg No.146)						
	Rosario Church -Part I Ch.30.0 to Ch.60.0	Sqm	1	531.62	Area		531.62
	Ch.60.0 to Ch.360.0	Sqm	1	300	7.451		2235.30
	Rosario Church Raod and Pandeshwar Junction Rosario Church -Part II-Bituminous Road	Sqm	1	668	Area		668.00
	Ch.700.0 to Ch.900.0	Sqm	1	200	4.43		886.00
	Junction of Roasario Road and Bunder Road at Railway Crossing	Sqm	1	1	403.78		403.78
	Bunder Road Ch.0.0 to Ch.250.0	Sqm	1	250	5.69		1422.50
	Ch.555.0 to Ch.1320.0	Sqm	1	765	4.38		3350.70
		Sqm			Total Qty	-	9497.90
7	KSRRB 300-46. Scarifying by mechanical means stone metal crust 50mm to 100mm thick by along with 20mm premix carpet I surface dressing and stacking of old serviceable materials including cost of all labour charges, HOM complete as per specifications.  MORTH I Chapter 3.(KSRRB 18-19,SI No.19.52,Pg No.146)						
-	Rosario Church -Part I Ch.30.0 to Ch.60.0	Sqm	1	531.62	Area		531.62
	Ch.60.0 to Ch.360.0	Sqm	1	300	7.451		2235.30
	Rosario Church Raod and Pandeshwar Junction  Rosario Road-Part II-Damaged Concrete Road	Sqm	1	668	Area		668.00
	Ch.500.0 to Ch.700.0	Sqm	1	270	0.8		216.00

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Rosario Church -Part II-Bituminous Road						
	Ch.700.0 to Ch.900.0	Sqm	1	200	4.43		886.00
	Junction of Roasario Road and Bunder Road at Railway Crossing	Sqm	1	1	403.78		403.78
	Bunder Road						
	Ch.0.0 to Ch.250.0 Ch.555.0 to Ch.1320.0	Sqm Sqm	1	250	5.69 4.38		1422.50 3350.70
	Cn.555.0 to Cn.1320.0	Sqm	ı ı	765	Total Qty		9713.90
	Considered Existing Thk. Of Granular base as 150 mm,so Scarifying has to	Sqiii			Total Qty	'. I	97 13.90
	be done in two layers.hence qty. Has been considered twice accordingly.	Sqm					19427.80
	KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (KSRRB 18-19,Page No 137,SI No : 18.23)						
	Pandeshwar Road						
	Stone Masonary-RHS	Cum	1	12	0.5	1.5	9.00
<u> </u>	Stone Masonary-RHS	Cum	1	14	0.5	1.5	10.50
-	Rosario Church Road-1 Open SWD-Ch.40.0 to Ch.150.0						
<b>—</b>	Wall	Cum	2	110	0.3	0.4	26.40
		Cum		110	Total Qty		45.90
		24					.0.00
9	Removing B.S slab of drain and stacking.(PWD 16-17,5.32,Page No.32)						
-	Rosario Church Road-Part I(RHS)	Carr	4	12.45		0.40	02.05
<b></b>	Ch.90.0 to Ch.130.0 Ch.135.0 to 160.0	Sqm Sqm	1	43.45 26.61		2.16 2.48	93.85 65.99
<b>—</b>	Ch.135.0 to 160.0 Ch.167.0 to 200.0	Sqm	1	38.21		2.48	93.61
	Ch.210.0 to 330.0	Sqm	1	120		1.71	205.20
	Ch. 330.0 to 404.0	Sqm	1	74		2.57	190.18
	Ch.404.0 to 407.0	Sqm	1	8.24	Area		8.24
	Ch.407.0 to Ch.500.0	Sqm	1	90		3.38	304.20
	Rosario Church Road-Part II(LHS)						165.5-
-	Ch.730.0 to Ch.860.0	Sqm Sqm	1	130	Total Qty	. 1	130.00 <b>1091.28</b>
10	KSRRB M800-Permanent type barricade in construction zone KSRRB M800-44.1. Construction of a permanent type barricade made of steel components, 1.5 m high from road level, fitted with 3 horizontal rails 200 mm wide and 4 m long on 50 x 50 x 5 mm angle iron vertical support, painted with yellow and white strips, 150 mm in width at an angle of 45°, complete as per IRC:SP:55-2014 complete as per specifications . A. With steel components(KSRRB 18-19,Page No 187,SI No : 24.45)						
-	Length of Road Considred 250m length at 4 locations work will be in progress	Rm	1	1000.00			1000.00
-	Sonsidiod 200111 length at 4 locations work will be in progress	MIII	1	1000.00		Total	
						Length	1000.00
	No. of Barricade = Length of Road / Length of one barricade (4.0m)	Nos.			Total Qty	<i>'</i> .	250.00
	KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 5.00Km and complete as per specifications. MORTH specification No.301 (KSRRB 18-19,Page No 143,SI No : 19.14)						
	SWD			-			
<u> </u>	Pandeshwar Road		ļ				
-	Foundation-SWD RHS-D1	Cum	1	271	1.8	1.44	702.43
<u> </u>	LHS-D2	Cum	1	271	1.8	0.85	414.63
	Rosario Church Road	Juili	·		1.5	0.00	.11.00
	Foundation						
	RHS-D4	Cum	1	420	1.2	1.20	604.80
	RHS-D5	Cum	1	334	1.8	1.60	961.92
ļ	RHS-D5B	Cum	1	43	1.2	0.85	43.86
-	RHS-D5A LHS-D3	Cum Cum	1	118 420	1.2 1.2	0.85 1.50	120.36 756.00
-	Bunder Road	Cum	'	4 <b>∠</b> U	1.2	1.50	100.00
<u> </u>	Foundation						
	RHS-D6	Cum	1	805	1.8	1.47	2130.03
	RHS-D7	Cum	1	316	2.1	1.48	982.13
	RHS-D7A	Cum	1	309	2.2	1.92	1305.22
	Light House Hill Road-1						

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Foundation RHS-D8	Cum	1	392	1.2	1.26	592.70
	LHS-D9	Cum	1	392	1.2	1.26	592.70
	LHS-D13	Cum	1	384	1.2	0.85	391.68
	KMC Merkera Road						
	Foundation RHS-D10A	Cum	1	577	1.35	1.48	1152.85
	RHS-D14	Cum	1	150	1.35	0.85	153.00
	LHS-10	Cum	1	577	1.25	1.48	1067.45
	Extension of Bibi alabi Road						
	RHS-D15	Cum	1	100	1.65	1.35	222.75
	Electrical Poles	Cum	184 4	1.35	1.35 1.6	1.00 1.00	335.34
	Signal Poles Electrical HDPE Pipe laying	Cum	4	1.6	1.6	1.00	10.24
	Pandeshwar Road	Cum	1	571	0.9	1.80	925.02
	Rosario Church Road-1	Cum	1	933	0.9	1.80	1511.46
	Rosario Church Road-2	Cum	1	794	0.9	1.80	1286.28
	Bunder Road	Cum	1	1329	0.9	1.80	2152.98
	Light House Hill Road  KMC Merkera Road	Cum Cum	1	992 1600	0.9	1.80 1.80	1607.04 2592.00
	NIVIC METRETA ROAU	Cum	1	1600	0.9	1.60	2592.00
	Electrical Chamber Excavation	Cum	211	3.3	2.4	2.40	4010.69
	Footpath Excavation						
	Pandeshwar Road						
	RHS Footpath		4.6	10.0	0.0	2.55	60.50
	Ch.0.0 to 40.00	Cum	1.0 0.3	40.0 3.1	2.2	0.38 0.38	33.56
	Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle	Cum Cum	0.3	3.1	2.5 3.3	0.38	0.74 1.00
	Ch.50.0 to 74.0	Cum	1.0	24.6	1.8	0.38	16.90
	Sloping Portion-Quarter Circle	Cum	1.0	4.2	1.0	0.38	1.60
	Sloping Portion-Quarter Circle	Cum	0.3	3.1	3.0	0.38	0.90
	Ch.80.0 to 120.00	Cum	1.0	40.0	2.0	0.38	30.02
	Sloping Portion-Quarter Circle	Cum	0.3	3.1	4.9	0.38	1.46
	Ch.130.0- Ch.260.0 LHS Footpath	Cum Cum	1.0	130.0	1.6	0.38	80.03
	Ch.20.0 to Ch.65.0	Cum	1.0	45.0	1.8	0.38	30.78
	Ch.65.0 to Ch.130.0	Cum	1.0	65.0	2.9	0.38	71.25
	Ch.130.0 to Ch.200.0	Cum	1.0	70.0	2.0	0.38	53.45
	Rosario Church Road-I						
	RHS	0	4.0	0440	0.4	0.00	405.47
	Ch.70.0 to 284.0 Sloping Portion-Quarter Circle	Cum Cum	1.0 0.3	214.0 3.1	2.4 6.4	0.38 0.38	195.17 1.91
	Ch.90 Triangular Portion	Cum	0.5	2.8	2.6	0.38	1.38
	Sloping Portion-Quarter Circle	Cum	0.3	3.1	6.6	0.38	1.95
	Ch.300.0 to Ch.330.0	Cum	1.0	29.7	2.4	0.38	27.10
	Sloping Portion-Quarter Circle	Cum	0.3	3.1	3.4	0.38	1.01
	Ch.337.0 to Ch.405.0	Cum	1.0	67.0	2.2	0.38	54.99
	Sloping Portion-Rectangular Ch.420.0 to Ch.490.0	Cum Cum	1.0 1.0	3.0 75.0	2.6 2.4	0.38 0.38	2.96 68.40
	Sloping Portion-Quarter Circle	Cum	0.3	3.1	6.4	0.38	1.91
	LHS					0.00	
	Ch.60.0 to Ch.145.0	Cum	1.0	81.0	2.6	0.38	80.03
	Sloping Portion-Rectangular	Cum	1.0	2.7	2.5	0.38	2.57
	Sloping Portion-Rectangular	Cum	1.0	3.6	3.6	0.38	4.82
	Ch.55.0 to 65.0-Trapezoidal Ch.65.0 to Ch.260.0	Cum Cum	1.0 1.0	10.0 92.0	4.3 2.5	0.38 0.38	16.26 87.40
	Sloping Portion-Rectangular	Cum	1.0	2.5	4.1	0.38	3.90
	Sloping Portion-Rectangular	Cum	1.0	2.5	4.0	0.38	3.80
	Ch.270.0 to Ch.300.00	Cum	1.0	28.2	2.5	0.38	26.79
	Ch.310.0 to Ch.330.0	Cum	1.0	19.6	2.5	0.38	18.59
	Ch.340.0 to Ch.350.0	Cum	1.0	9.7	2.5	0.38	9.22
	Ch.360.0 to Ch.390.0 Ch.400.0 to Ch.465.0	Cum Cum	1.0 1.0	28.4 65.5	2.5 2.5	0.38 0.38	27.00 62.23
	OTI. 400.0 TO OTI. 400.0	Cuiii	1.0	00.0	۷.۵	0.30	02.23
	Light House Hill Road-LHS						
	Ch.0.0 to Ch.210.0	Cum	1.0	210.0	3.8	0.38	300.05
	Ch.210.0 to Ch.260.0	Cum	1.0	50.0	9.9	0.38	188.41
	Ch.240.0 to Ch.370.0 Ch.350.0 to Ch.500.0	Cum Cum	1.0 1.0	130.0 150.0	2.0 10.7	0.38 0.38	100.95 607.62
	Ch.500 to Ch.670.0	Cum	1.0	170.0	4.1	0.38	266.15
	Ch.650.0 to Ch.800.0	Cum	1.0	150.0	2.3	0.38	128.25
	Light House Hill Road-RHS			405.5	2.5		
	Ch.0.0 to Ch.105.0	Cum	1.0	105.0 60.0	2.8	0.38	112.52
	Ch.110.0 to Ch.170.0 Ch.170.0 to Ch.255.0	Cum Cum	1.0 1.0	85.0	4.4 4.4	0.38 0.38	99.64 141.47
	OH. 17 0.0 10 OH.200.0		1.0	510.0	3.1	0.38	600.78
	Ch 260 0 to Ch 770 0	i Ciim				0.00	000.70
	Ch.260.0 to Ch.770.0	Cum					
	Ch.260.0 to Ch.770.0  KMC Merkera Road-LHS	Cum					
		Cum	1.0	670.0	3.2	0.38	801.99

Chi 0.00 to Chi 30.00   Cum   1.0   0.00   3.2   0.38   10.19   Chi 30.00 to Chi 32.00   3.8   0.38   Risk   Chi 30.00 to Chi 30.00 to Chi 30.00 to Chi 30.00 to Chi 40.00   Cum   1.0   170.0   3.4   0.39   278.35   Chi 30.00 to Chi 30.00 to Chi 40.00   Cum   1.0   170.0   3.4   0.39   278.35   Chi 30.00 to Chi 30.	Sr. No.	Description	Unit	No's	L	В	Н	Qty.
Chi 160 (in Chi 300 0   Cum   10								
Ch. 900 to Ch. 4700   Com								
Ch-170   C								
Footpath of Extension of Bibl alabi road								
Residence			Juni	1.0	200.0	0.0	0.00	020.00
U-S								
Ch.10.0 to Ch.170.0   Cum   1.0   70.0   2.5   0.38   67.56			Cum	1.0	100.0	2.4	0.38	91.58
Chr.		-						
Paver block on Carriageway								
Pandeshwar Read		CII.75.00 to CII.90.0	Cum	1.0	15.0	2.0	0.36	15.96
Pandeshwar Read		Paver block on Carriageway					1	
Ch.130.0 to Ch.235.0   Cum								
LHS								
Ch.20 to Ch.65 0			Cum	1	105	1.66	0.63	108.94
Ch.80.0 to Ch.195.0   Cum			Cum	4	A.E.	1 01	0.63	E0.01
Ch.145 0 to Ch.170 0								
Ch.180.0 to Ch.195.0   Cum								
Resario Church Road-LHS								
Ch.60.0 to Ch.145.0   Cum		Ch.200.0 to 270.0	Cum	1	4.62	1.56	0.63	4.50
Ch.155.0 to Ch.260.0   Cum								
Cn. 285.0 to Ch. 390.0   Cum	<u> </u>							
Ch.310,0 to Ch.330,0   Cum	<u> </u>							
Cn.335.0 to Ch.350.0   Cum								
Ch.380.0 to Ch.390.0   Ch.380.0 to Ch.390.0   Ch.380.0 to Ch.390.0   Ch.494.0 to Ch.520.0   Ch.494.0 to Ch.520.0   Ch.494.0 to Ch.520.0   Cum 1								
Rosario Church Road-Part II-LHS				1	32.7	1.7		34.74
Ch.494.0 to Ch.520.0			Cum	1	68.63	3.44	0.63	147.55
Gate Entrance at Ch.520.0								
Ch.526.0 to Ch.550.0  Ch.520.0 to Ch.550.0  Ch.570.0 to Ch.560.0  Ch.570.0 to Ch.570.0  Ch.570.0 to Ch.570.0								
Ch. 523 0 to Ch. 550 0								
Gate Entrance at Ch.550								
Ch.550.0 to Ch.565.0   Cum								
Ch.600.0 to Ch.640.0   Cum			Cum	1		12.52	0.63	
Ch.640.0 to Ch.740.0   Cum								
Ch.750.0 to Ch. 890.0   Cum								
Rosario Church Road-Part II-RHS								
Ch.500-Odd shape			Cum	ı	130	ı	0.63	98.75
Ch.510.0 to Ch.570.0   Ch.570.0 to Ch.625.0   Ch.570.0 to Ch.625.0   Ch.570.0 to Ch.625.0   Ch.625.0 to Ch.625.0   Ch.625.0 to Ch.626.0   Ch.625.0 to Ch.626.0   Ch.625.0 to Ch.626.0   Ch.700.0 to Ch.733.0   Cum			Cum	1	2.18	7.5	0.63	10.22
Ch.625.0 to Ch.698.0   Cum		Ch.510.0 to Ch.570.0	Cum				0.63	
Ch.700.0 to Ch.753.0		Ch.570.0 to Ch.625.0						
Ch.753.0 to Ch.880.0   Cm								
Bunder Road-LHS								
Ch.0.0 to Ch. 125.0   Cum			Culli	<u>'</u>	121	0.94	0.03	74.01
Ch.125.1 to Ch. 160.0         Cum         1         33         2.31         0.63         47.64           Ch.160.1 to 172.0 (including LHS footpath         Cum         1         16         7.74         0.63         47.64           Ch.180.0 to Ch.210.0         Cum         1         15.61         1.44         0.63         14.05           Ch.208.0 to Ch.223.0         Cum         1         27.69         0.94         0.63         16.27           Ch.208.0 to Ch.23.0         Cum         1         17.27         2.3         0.63         24.83           Ch.223.0 to Ch.245.0         Cum         1         27.27         2.3         0.63         26.43           Road at Ch.250.0 RHS Side Footpath         Cum         1         10         1.4         0.63         8.75           Road at Ch.250.0 RHS Side Footpath         Cum         1         10         7.2         0.63         45.00           Ch.280.0 to Ch.280.0         Ch.280.0         Ch.280.0         Ch.280.0         Ch.280.0         Ch.390.0         Ch.390.0         Ch.390.0         Ch.340.0         Cum         1         22.6         2.82         0.63         39.99           Ch.280.0 to Ch.380.0         Ch.340.0         Cum         1         <			Cum	1	119	2.54	0.63	188.91
Road at Ch.180.0 RHS Side Footpath								
Ch. 180.0 to Ch.210.0         Cum         1         27.69         0.94         0.63         16.27           Ch.208.0 to Ch.223.0         Cum         1         17.27         2.3         0.63         24.83           Ch.223.0 to Ch.223.0         Cum         1         28         1.51         0.63         24.83           Road at Ch.250.0 LHS Side Footpath         Cum         1         10         1.4         0.63         8.75           Road at Ch.250.0 RHS Side Footpath         Cum         1         10         7.2         0.63         45.00           Ch.260.0 to Ch.280.0         Cum         1         22.69         2.82         0.63         36.93           Ch.280.0 to Ch.300.0         Cum         1         21.1         2.8         0.63         36.93           Ch.345.0 to Ch.340.0         Cum         1         37         5.39         0.63         124.64           Ch.345.0 to Ch.382.0         Cum         1         37.6         3.6         171.27           Ch.390.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         137.87           Ch.390.0 to Ch.480.0         Cum         1         158.67         3.76         0.63         137.87     <			Cum				0.63	
Ch.208.0 to Ch.223.0         Cum         1         17.27         2.3         0.63         24.83           Ch.223.0 to Ch.245.0         Cum         1         28         1.51         0.63         26.43           Road at Ch.250.0 LHS Side Footpath         Cum         1         10         1.4         0.63         8.75           Road at Ch.250.0 RHS Side Footpath         Cum         1         10         7.2         0.63         45.00           Ch.280.0 to Ch.380.0         Cum         1         21.1         2.8         0.63         39.99           Ch.280.0 to Ch.300.0         Cum         1         21.1         2.8         0.63         36.93           Ch.300.0 to Ch.340.0         Cum         1         37         5.39         0.63         124.64           Ch.340.0 to Ch.340.0         Cum         1         37         5.39         0.63         124.64           Ch.340.0 to Ch.382.0         Cum         1         38.65         7.09         0.63         171.27           Ch.340.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         137.87           Ch.440.1 to Ch.650.0         Cum         1         120         1.2         0.63         19								
Ch.223.0 to Ch.245.0         Cum         1         28         1.51         0.63         26.43           Road at Ch.250.0 LHS Side Footpath         Cum         1         10         1.4         0.63         8.75           Road at Ch.250.0 RHS Side Footpath         Cum         1         10         7.2         0.63         45.00           Ch.260.0 to Ch.280.0         Cum         1         22.69         2.82         0.63         39.99           Ch.280.0 to Ch.300.0         Cum         1         21.1         2.8         0.63         39.99           Ch.345.0 to Ch.340.0         Cum         1         37         5.39         0.63         124.64           Ch.345.0 to Ch.382.0         Cum         1         38.65         7.09         0.63         124.64           Ch.345.0 to Ch.382.0         Cum         1         38.65         7.09         0.63         171.27           Ch.390.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         137.87           Ch.490.0 to Ch.880.0         Cum         1         183         0.5         0.63         157.19           Ch.880.0 to Ch.170.0         Cum         1         183         0.5         0.63 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Road at Ch.250.0 LHS Side Footpath								
Road at Ch.250.0 RHS Side Footpath								
Ch.260.0 to Ch.280.0         Cum         1         22.69         2.82         0.63         39.99           Ch.280.0 to Ch.300.0         Cum         1         21.1         2.8         0.63         36.93           Ch.300.0 to Ch.340.0         Cum         1         37         5.39         0.63         124.64           Ch.345.0 to Ch.382.0         Cum         1         38.65         7.09         0.63         171.27           Ch.390.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         171.27           Ch.440.1 to Ch. 650.0         Cum         1         120         1.2         0.63         90.00           Ch.690.0 to Ch.880.0         Cum         1         120         1.2         0.63         90.00           Ch.880.0 to Ch.1170.0         Cum         1         183         0.5         0.63         57.19           Ch.880.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12								
Ch.300.0 to Ch.340.0         Cum         1         37         5.39         0.63         124.64           Ch.345.0 to Ch.382.0         Cum         1         38.65         7.09         0.63         171.27           Ch.390.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         187.87           Ch.440.1 to Ch. 650.0         Cum         1         120         1.2         0.63         90.00           Ch. 690.0 to Ch.880.0         Cum         1         183         0.5         0.63         57.19           Ch.880.0 to Ch.1170.0         Cum         1         86         2.2         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.56		Ch.260.0 to Ch.280.0						39.99
Ch.345.0 to Ch.382.0         Cum         1         38.65         7.09         0.63         171.27           Ch.390.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         137.87           Ch.440.1 to Ch. 650.0         Cum         1         120         1.2         0.63         90.00           Ch. 690.0 to Ch.880.0         Cum         1         183         0.5         0.63         57.19           Ch.880.0 to Ch.1170.0         Cum         1         86         2.2         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12           Ch.1220.0 to 1280.0         Cum         1         34.24         1.11         0.63         42.59           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         145.12           Ch.18.0 to Ch.330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS         Cum         1         13.61         1.97         0.63         16.76     <								
Ch.390.0 to Ch.440.0         Cum         1         58.67         3.76         0.63         137.87           Ch.440.1 to Ch. 650.0         Cum         1         120         1.2         0.63         90.00           Ch. 690.0 to Ch.880.0         Cum         1         183         0.5         0.63         57.19           Ch.880.0 to Ch.1170.0         Cum         1         86         2.2         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12           Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.30.0 to Ch.180.0         Cum         1         13.44         1.645         0.63         13.82 <td><u> </u></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	<u> </u>							
Ch.440.1 to Ch. 650.0         Cum         1         120         1.2         0.63         90.00           Ch. 690.0 to Ch.880.0         Cum         1         183         0.5         0.63         57.19           Ch.880.0 to Ch.1170.0         Cum         1         86         2.2         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12           Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS         Ch.0.0 to Ch. 18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.44         1.645         0.63         13.82           Ch.50.0 to Ch.50.0         Cum         1         13.44         1.645         0.63 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-							
Ch. 690.0 to Ch.880.0         Cum         1         183         0.5         0.63         57.19           Ch.880.0 to Ch.1170.0         Cum         1         86         2.2         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12           Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.50.0         Cum         1         13.44         1.645         0.63         13.82           Ch.50.0 to Ch.180.0         Cum         1         13.44         1.645         0.63         13.82           Ch.50.0 to Ch.180.0         Cum         1         130         3.31         0.63         268.94	<u> </u>							
Ch.880.0 to Ch.1170.0         Cum         1         86         2.2         0.63         118.25           Ch.1170.0 to Ch.1212.0         Cum         1         42.33         1.61         0.63         42.59           Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12           Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS           Ch.0.0 to Ch. 18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.44         1.645         0.63         13.82           Ch.30.0 to Ch.50.0         Cum         0.5         19.17         2.137         0.63         12.80           Ch.50.0 to Ch.180.0         Cum         1         13.0         3.31         0.63         268.94           Ch.180.0 to Ch.245.0         Cum         1         130         3.31         0.63         268.94           Ch.250.0 to Ch.555.0         Cum         1         305								
Ch.1220.0 to 1280.0         Cum         1         65.59         3.54         0.63         145.12           Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS           Ch.0.0 to Ch. 18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.44         1.645         0.63         13.82           Ch.30.0 to Ch.50.0         Cum         0.5         19.17         2.137         0.63         12.80           Ch.50.0 to Ch.180.0         Cum         1         130         3.31         0.63         268.94           Ch.180.0 to Ch.245.0         Cum         1         65         5.35         0.63         217.34           Ch.250.0 to Ch.555.0         Cum         1         305         2.6         0.63         495.63           Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3		Ch.880.0 to Ch.1170.0		1	86			118.25
Ch.1280.0 to 1320.0         Cum         1         34.24         1.11         0.63         23.75           Ch.1320.0 to Ch.1330.0         Cum         1         7.54         3.11         0.63         14.66           Bunder Road-RHS         Ch.0.0 to Ch. 18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.44         1.645         0.63         13.82           Ch.30.0 to Ch.50.0         Cum         0.5         19.17         2.137         0.63         12.80           Ch.50.0 to Ch.180.0         Cum         1         130         3.31         0.63         268.94           Ch.180.0 to Ch.245.0         Cum         1         65         5.35         0.63         217.34           Ch.250.0 to Ch.555.0         Cum         1         305         2.6         0.63         495.63           Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         <								
Ch.1320.0 to Ch.1330.0       Cum       1       7.54       3.11       0.63       14.66         Bunder Road-RHS       Ch.0.0 to Ch. 18.0       Cum       1       13.61       1.97       0.63       16.76         Ch.18.0 to Ch.30.0       Cum       1       13.44       1.645       0.63       13.82         Ch.30.0 to Ch.50.0       Cum       0.5       19.17       2.137       0.63       12.80         Ch.50.0 to Ch.180.0       Cum       1       130       3.31       0.63       268.94         Ch.180.0 to Ch.245.0       Cum       1       65       5.35       0.63       217.34         Ch.250.0 to Ch.555.0       Cum       1       305       2.6       0.63       495.63         Ch.550 to Ch.580       Cum       1       30       2.5       0.63       46.88         Ch.710.0 to Ch.810       Cum       1       100       3       0.63       187.50         Ch.820.0 to Ch.992.0       Cum       1       172       6.63       0.63       712.73         Ch.900.0 to Ch.1238.0       Cum       1       338       1.2       0.63       253.50         Ch.1238.0 to Ch.1238.0 to Ch.1336.0       Cum       1       98 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>								
Bunder Road-RHS         Ch.0.0 to Ch. 18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.44         1.645         0.63         13.82           Ch.30.0 to Ch.50.0         Cum         0.5         19.17         2.137         0.63         12.80           Ch.50.0 to Ch.180.0         Cum         1         130         3.31         0.63         268.94           Ch.180.0 to Ch.245.0         Cum         1         65         5.35         0.63         217.34           Ch.250.0 to Ch.555.0         Cum         1         305         2.6         0.63         495.63           Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         0.63         712.73           Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63								
Ch.0.0 to Ch. 18.0         Cum         1         13.61         1.97         0.63         16.76           Ch.18.0 to Ch.30.0         Cum         1         13.44         1.645         0.63         13.82           Ch.30.0 to Ch.50.0         Cum         0.5         19.17         2.137         0.63         12.80           Ch.50.0 to Ch.180.0         Cum         1         130         3.31         0.63         268.94           Ch.180.0 to Ch.245.0         Cum         1         65         5.35         0.63         217.34           Ch.250.0 to Ch.555.0         Cum         1         305         2.6         0.63         495.63           Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         0.63         712.73           Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63         142.10	-		Cuffi	1	7.54	3.11	0.03	14.00
Ch.18.0 to Ch.30.0       Cum       1       13.44       1.645       0.63       13.82         Ch.30.0 to Ch.50.0       Cum       0.5       19.17       2.137       0.63       12.80         Ch.50.0 to Ch.180.0       Cum       1       130       3.31       0.63       268.94         Ch.180.0 to Ch.245.0       Cum       1       65       5.35       0.63       217.34         Ch.250.0 to Ch.555.0       Cum       1       305       2.6       0.63       495.63         Ch.550 to Ch.580       Cum       1       30       2.5       0.63       46.88         Ch.710.0 to Ch.810       Cum       1       100       3       0.63       187.50         Ch.820.0 to Ch.992.0       Cum       1       172       6.63       0.63       712.73         Ch.900.0 to Ch.1238.0       Cum       1       338       1.2       0.63       253.50         Ch.1238.0 to Ch.1336.0       Cum       1       98       2.32       0.63       142.10			Cum	1	13.61	1.97	0.63	16.76
Ch.30.0 to Ch.50.0         Cum         0.5         19.17         2.137         0.63         12.80           Ch.50.0 to Ch.180.0         Cum         1         130         3.31         0.63         268.94           Ch.180.0 to Ch.245.0         Cum         1         65         5.35         0.63         217.34           Ch.250.0 to Ch.555.0         Cum         1         305         2.6         0.63         495.63           Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         0.63         712.73           Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63         142.10				1		1.645		
Ch.180.0 to Ch.245.0         Cum         1         65         5.35         0.63         217.34           Ch.250.0 to Ch.555.0         Cum         1         305         2.6         0.63         495.63           Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         0.63         712.73           Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63         142.10		Ch.30.0 to Ch.50.0	Cum	0.5	19.17	2.137	0.63	12.80
Ch.250.0 to Ch.555.0       Cum       1       305       2.6       0.63       495.63         Ch.550 to Ch.580       Cum       1       30       2.5       0.63       46.88         Ch.710.0 to Ch.810       Cum       1       100       3       0.63       187.50         Ch.820.0 to Ch.992.0       Cum       1       172       6.63       0.63       712.73         Ch.900.0 to Ch.1238.0       Cum       1       338       1.2       0.63       253.50         Ch.1238.0 to Ch.1336.0       Cum       1       98       2.32       0.63       142.10								
Ch.550 to Ch.580         Cum         1         30         2.5         0.63         46.88           Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         0.63         712.73           Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63         142.10								
Ch.710.0 to Ch.810         Cum         1         100         3         0.63         187.50           Ch.820.0 to Ch.992.0         Cum         1         172         6.63         0.63         712.73           Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63         142.10								
Ch.820.0 to Ch.992.0     Cum     1     172     6.63     0.63     712.73       Ch.900.0 to Ch.1238.0     Cum     1     338     1.2     0.63     253.50       Ch.1238.0 to Ch.1336.0     Cum     1     98     2.32     0.63     142.10	<u> </u>							
Ch.900.0 to Ch.1238.0         Cum         1         338         1.2         0.63         253.50           Ch.1238.0 to Ch.1336.0         Cum         1         98         2.32         0.63         142.10	<b> </b>							
Ch.1238.0 to Ch.1336.0 Cum 1 98 2.32 0.63 142.10								
Concrete New Road								
		Concrete New Road						

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Pandeshwar Road						
	RHS Ch.150.0 to Ch.260.0	Cum	1	116	3.38	0.15	58.81
	LHS	Cum	- 1	110	3.30	0.15	30.01
	Ch.150.0 to Ch.170.0	Cum	1	23	3.09	0.15	10.66
	Ch.180.0 to Ch.205.0	Cum	1	24.25	4.62	0.15	16.81
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I	Cum	1	68	1.65	0.15	16.83
	Junction area at Hamilton Road	Cum	1	770	Area	0.15	115.50
	Ch.60.0 to 360.0	Cum	1	300	9.975	0.15	448.88
	Junction at Rosario Road and Pandeshwar Road	Cum	1	903	Area	0.15	135.45
	Rosario church Road-Part II Ch.780.0 to 900.0	Cum	1	120	6.2	0.15	111.60
	Bunder Road	Odili		120	0.2	0.10	111.00
	Ch.0.0 to Ch.1336.0	Cum	1	1336	6.7	0.15	1342.68
	Light House Hill Road Ch.10.0 to 100.0	Cum	1	93	1.13	0.15	15.76
	Ch.10.0 to 100.0 Ch.100.0 to 210.0	Cum	1	175	1.13	0.15	26.25
	Ch.210.0 to Ch.340.0	Cum	1	130	4.54	0.15	88.53
	Ch.350.0 to Ch.480.0	Cum	1	130	5.84	0.15	113.88
	KMC Merkera Road						
	Ch.180.0 to Ch.320.0	Cum	1	140	1.34	0.15	28.14
	Ch.350.0 to Ch.660.0	Cum	1	310	2.36	0.15	109.74
	RHS				6.15		
	Ch.70.0 to Ch.310.0 Ch.310.0 to Ch.510.0	Cum Cum	1	240 200	2.17 2.81	0.15 0.15	78.12 84.30
	Cri.310.0 to Cri.310.0	Cuili	'	200	2.01	0.15	04.30
		Cum			Total Qty		40414.00
	KSRB 2-4: <b>Refilling available earth</b> around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming						
12	after watering with lead upto 50m. and lift upto 1.5 m. including cost of all						
	labour complete as per specifications.						
	Electrical HDPE Pipe laying						
	Pandeshwar Road	Cum	1	571	0.9	1.8	925.02
	Rosario Church Road-1 Rosario Church Road-2	Cum Cum	1	933	0.9	1.8	1511.46
	Bunder Road	Cum	1	794 1329	0.9 0.9	1.8 1.8	1286.28 2152.98
	Light House Hill Road	Cum	1	992	0.9	1.8	1607.04
	KMC Merkera Road	Cum	1	1600	0.9	1.8	2592.00
	Power Duct-Pipe Dia.225mm-RHS Pandeshwar Road	Cum	-4	207	2.44	0.05	407.00
	Rosario Church Road-1	Cum	- <del>4</del> -5	267 486	3.14 3.14	0.05 0.05	-167.68 -381.51
	Rosario Church Road-2	Cum	-4	397	3.14	0.05	-249.32
	Bunder Road	Cum	0	0	3.14	0.05	0.00
	Light House Hill Road	Cum	-4	742	3.14	0.05	-465.98
	KMC Merkera Road Power Duct-Pipe Dia.225mm-LHS	Cum	-4	800	3.14	0.05	-502.40
	Pandeshwar Road	Cum	-4	304	3.14	0.05	-190.91
	Rosario Church Road-1	Cum	-2	447	3.14	0.05	-140.36
	Rosario Church Road-2	Cum	0	397	3.14	0.05	0.00
	Bunder Road Light House Hill Road	Cum Cum	-4 -4	1329 250	3.14 3.14	0.05 0.05	-834.61 -157.00
	KMC Merkera Road	Cum	-4	800	3.14	0.05	-502.40
	Power Duct-Pipe Dia.160mm-RHS						
	Pandeshwar Road	Cum	-5	267	3.14	0.05	-209.60
	Rosario Church Road-1 Rosario Church Road-2	Cum Cum	-4 -4	486 397	3.14 3.14	0.05 0.05	-305.21 -249.32
	Bunder Road	Cum	-4 -4	0	3.14	0.05	0.00
	Light House Hill Road	Cum	-5	742	3.14	0.05	-582.47
	KMC Merkera Road	Cum	-5	800	3.14	0.05	-628.00
	Power Duct-Pipe Dia.160mm-LHS Pandeshwar Road	Cum	-5	304	3.14	0.05	-238.64
	Rosario Church Road-1	Cum	-5 -4	447	3.14	0.05	-238.64 -280.72
	Rosario Church Road-2	Cum	-4	397	3.14	0.05	-249.32
	Bunder Road	Cum	-4	1329	3.14	0.05	-834.61
	Light House Hill Road	Cum Cum	-5 -5	250 800	3.14	0.05	-196.25
	KMC Merkera Road	Cum	-5	000	3.14	0.05	-628.00
	Dia 160 mm Pipe Volume	Cum	-5	2692	3.14	0.03	-1267.93
	Total Excavation for Chambers	Cum	1	4010.69			4010.69
	Deduct Vol of Chamber	Cum	-211	2.40	1.10	2.10	-1169.78
	Total Excavation for Electric Pole  Ded. Vol of Concrete	Cum Cum	-1	335.34 32.29			335.34 -32.29
	Total Excavation for Signal Pole	Cum	1	10.24			10.24
	Ded. Vol of Concrete	Cum	-1	1.50			-1.50
	Total Excavation for SWD	Cum	1	11971.76			11971.76
	Deducting the Volume of SWD						
	Pandeshwar Road Foundation-SWD			-			
	RHS-D1	Cum	-1	271	0.6	1.19	-193.49

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	LHS-D2	Cum	-1	271	0.6	0.6	-97.56
	Rosario Church Road						
	Foundation	C::==	4	400	0.0	0.05	220.40
	RHS-D4 RHS-D5	Cum Cum	-1 -1	420 334	0.6 1.2	0.95 1.35	-239.40 -541.08
	RHS-D5B	Cum	-1	43	0.6	0.6	-15.48
	RHS-D5A	Cum	-1	118	0.6	0.6	-42.48
	LHS-D3	Cum	-1	420	0.6	1.25	-315.00
	Bunder Road						
	Foundation RHS-D6	Cum	-1	805	1.2	1.22	-1178.52
	RHS-D7	Cum	-1 -1	316	1.5	1.23	-583.02
	RHS-D7A	Cum	-1	309	1.5	1.67	-774.05
	Light House Hill Road-1						
	Foundation						
	RHS-D8	Cum	-1	392	0.6	1.01	-237.55
	LHS-D9 LHS-D13	Cum Cum	-1 -1	392 384	0.6 0.6	1.01 0.6	-237.55 -138.24
	KMC Merkera Road	Cuiii	-1	304	0.0	0.0	-130.24
	Foundation						
	RHS-D10A	Cum	-1	577	0.75	1.23	-532.28
	RHS-D14	Cum	-1	150	0.6	0.6	-54.00
	LHS-10	Cum	-1	577	0.75	1.23	-532.28
					Total Ot		10225 02
					Total Qty	•	10225.03
	KSRRB 300-58. Compaction of original ground by mechanical means						
	including filling in depression occuring during rolling including cost of						
13	all labour, HOM complete as per specifications.						
	MORTH I Chapter 3						
	(KSRRB 18-19,SI No.19.64,Pg. No.147)						
	Paver block on Carriageway						
	Pandeshwar Road						
	RHS Ch.130.0 to Ch.235.0	Sqm	1	105	1.66		174.30
	LHS	Sqiii	ı	103	1.00		0.00
	Ch.20.0 to Ch.65.00	Sqm	1	45	1.81		81.45
	Ch.80.0 to Ch.135.0	Sqm	1	55	1		55.00
	Ch.145.0 to Ch.170.0	Sqm	1	25.39	1.25		31.74
	Ch.180.0 to Ch.195.0	Sqm	1	13.37	2.1		28.08
	Ch.200.0 to 270.0	Sqm	1	4.62	1.56		7.21
	Rosario Church Road-LHS Ch.60.0 to Ch.145.0	Sqm	1	84.54	2.46		207.97
	Ch.155.0 to Ch.260.0	Sqm	1	107	3.87		414.09
	Ch.265.0 to Ch.300.0	Sqm	1	34	2.73		92.82
	Ch.310.0 to Ch.330.0	Sqm	1	24.18	1.685		40.74
	Ch.335.0 to Ch.350.0	Sqm	1	14	1.45		20.30
	Ch.360.0 to Ch.390.0	Sqm	1	32.7	1.7		55.59
	Ch.400.0 to Ch.470.0  Rosario Church Road-Part II-LHS	Sqm	1	68.63	3.44		236.09 0.00
	Ch.494.0 to Ch.520.0	Sqm	1	23	1.98		45.54
	Gate Entrance at Ch.520.0	Sqm	1	6.33	4.17		26.40
	Ch.525.0 to Ch.550.0	Sqm	1	25.96	4.6		119.42
	Ch.523.0 to Ch. 550.0	Sqm	1	4.23	26	_	109.98
	Gate Entrance at Ch.550	Sqm	1	7.54	3.73		28.12
	Ch.550.0 to Ch.565.0	Sqm	1	2.77 2.23	12.52 27		34.68
	Ch.570.0 to Ch.600.0 Ch.600.0 to Ch.640.0	Sqm Sqm	1	0.76	38		60.21 28.88
	Ch.640.0 to Ch.740.0	Sqm	1	102	0.45		45.90
	Ch.750.0 to Ch. 890.0	Sqm	1	158	1		158.00
	Rosario Church Road-Part II-RHS						0.00
	Ch.500-Odd shape	Sqm	1	2.18	7.5		16.35
	Ch.510.0 to Ch.570.0	Sqm	1	63	2.34		147.42
	Ch.570.0 to Ch.625.0 Ch.625.0 to Ch.698.0	Sqm Sqm	1	56.45 73.25	2.32 1.67		130.96 122.33
	Ch.700.0 to Ch.753.0	Sqm	1	51.57	1.02		52.60
	Ch.753.0 to Ch.880.0	Sqm	1	127	0.94		119.38
	Bunder Road-LHS						0.00
·	Ch.0.0 to Ch. 125.0	Sqm	1	119	2.54		302.26
	Ch.125.1 to Ch. 160.0	Sqm	1	33	2.31		76.23
	Ch.160.1 to 172.0( including LHS footpath  Road at Ch.180.0 RHS Side Footpath	Sqm Sqm	1	16 15.61	7.74 1.44		123.84 22.48
	Ch. 180.0 to Ch.210.0	Sqm	1	27.69	0.94		26.03
	Ch.208.0 to Ch.223.0	Sqm	1	17.27	2.3		39.72
	Ch.223.0 to Ch.245.0	Sqm	1	28	1.51		42.28
	Road at Ch.250.0 LHS Side Footpath	Sqm	1	10	1.4		14.00
	Road at Ch.250.0 RHS Side Footpath	Sqm	1	10	7.2		72.00
	Ch.260.0 to Ch.280.0	Sqm	1	22.69	2.82		63.99
		E'am	1	21.1	2.8		59.08
	Ch.280.0 to Ch.300.0	Sqm					
	Ch.280.0 to Ch.300.0 Ch.300.0 to Ch.340.0 Ch.345.0 to Ch.382.0	Sqm Sqm	1	37 38.65	5.39 7.09		199.43 274.03

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Ch.440.1 to Ch. 650.0	Sqm	1	120	1.2		144.00
	Ch. 690.0 to Ch.880.0	Sqm	1	183	0.5		91.50
	Ch.880.0 to Ch.1170.0	Sqm	1	86	2.2		189.20
	Ch.1170.0 to Ch.1212.0 Ch.1220.0 to 1280.0	Sqm Sqm	1	42.33 65.59	1.61 3.54		68.15 232.19
	Ch.1280.0 to 1320.0	Sqm	1	34.24	1.11		38.01
	Ch.1320.0 to Ch.1330.0	Sqm	1	7.54	3.11		23.45
	Bunder Road-RHS	94	· ·	7.10	0		201.10
	Ch.0.0 to Ch. 18.0	Sqm	1	13.61	1.97		26.81
	Ch.18.0 to Ch.30.0	Sqm	1	13.44	1.645		22.11
	Ch.30.0 to Ch.50.0	Sqm	0.5	19.17	2.137		20.48
	Ch.50.0 to Ch.180.0	Sqm	1	130	3.31		430.30
	Ch.180.0 to Ch.245.0	Sqm	1	65	5.35		347.75
	Ch.250.0 to Ch.555.0	Sqm	1	305	2.6		793.00
	Ch.550 to Ch.580 Ch.710.0 to Ch.810	Sqm Sqm	1	30 100	2.5		75.00 300.00
	Ch.820.0 to Ch.992.0	Sqm	1	172	6.63		1140.36
	Ch.900.0 to Ch.1238.0	Sqm	1	338	1.2		405.60
	Ch.1238.0 to Ch.1336.0	Sqm	1	98	2.32		227.36
	Footpath						
	Pandeshwar Road						
	RHS Footpath						
	Ch.0.0 to 40.00	Sqm	1.00	40.00	2.21		88.32
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	2.46		1.93
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	3.35		2.63
	Ch.50.0 to 74.0	Sqm	1.00	24.64	1.81		44.48
	Sloping Portion-Quarter Circle	Sqm	1.00	4.22	1.00		4.22
-	Sloping Portion-Quarter Circle Ch.80.0 to 120.00	Sqm Sqm	0.25 1.00	3.14 40.00	3.03 1.98		2.38 79.00
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	4.88		3.83
	Ch.130.0- Ch.260.0	Sqm	1.00	130.00	1.62		210.60
	LHS Footpath	Oqiii	1.00	100.00	1.02		0.00
	Ch.20.0 to Ch.65.0	Sqm	1.00	45.00	1.80		81.00
	Ch.65.0 to Ch.130.0	Sqm	1.00	65.00	2.88		187.50
	Ch.130.0 to Ch.200.0	Sqm	1.00	70.00	2.01		140.65
	Rosario Church Road-I						0.00
	RHS						0.00
	Ch.70.0 to 284.0	Sqm	1.00	214.00	2.40		513.60
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	6.40		5.02
	Ch.90 Triangular Portion	Sqm	0.50	2.83	2.56		3.62
	Sloping Portion-Quarter Circle Ch.300.0 to Ch.330.0	Sqm Sqm	0.25 1.00	3.14 29.72	6.55 2.40		5.14 71.33
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	3.39		2.66
	Ch.337.0 to Ch.405.0	Sqm	1.00	67.00	2.16		144.72
	Sloping Portion-Rectangular	Sqm	1.00	3.00	2.60		7.80
	Ch.420.0 to Ch.490.0	Sqm	1.00	75.00	2.40		180.00
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	6.40		5.02
	LHS						0.00
	Ch.60.0 to Ch.145.0	Sqm	1.00	81.00	2.60		210.60
	Sloping Portion-Rectangular	Sqm	1.00	2.70	2.50		6.75
	Sloping Portion-Rectangular	Sqm	1.00	3.56	3.56		12.67
	Ch.55.0 to 65.0-Trapezoidal Ch.65.0 to Ch.260.0	Sqm Sqm	1.00	10.00 92.00	4.28 2.50		42.80 230.00
	Sloping Portion-Rectangular	Sqm	1.00	2.50	4.11		10.28
	Sloping Portion-Rectangular	Sqm	1.00	2.50	4.00		10.00
	Ch.270.0 to Ch.300.00	Sqm	1.00	28.20	2.50		70.50
	Ch.310.0 to Ch.330.0	Sqm	1.00	19.57	2.50		48.93
	Ch.340.0 to Ch.350.0	Sqm	1.00	9.70	2.50		24.25
	Ch.360.0 to Ch.390.0	Sqm	1.00	28.42	2.50		71.05
	Ch.400.0 to Ch.465.0	Sqm	1.00	65.50	2.50		163.75
<u> </u>							1
-	Limbs Haves Hill Book LHC	1					+
	Light House Hill Road-LHS Ch.0.0 to Ch.210.0	Sqm	1.00	210.00	3.76		789.60
	Ch.210.0 to Ch.210.0 Ch.210.0 to Ch.260.0	Sqm	1.00	50.00	9.92		495.81
	Ch.240.0 to Ch.370.0	Sqm	1.00	130.00	2.04		265.66
	Ch.350.0 to Ch.500.0	Sqm	1.00	150.00	10.66		1599.00
	Ch.500 to Ch.670.0	Sqm	1.00	170.00	4.12		700.40
	Ch.650.0 to Ch.800.0	Sqm	1.00	150.00	2.25		337.50
<u> </u>	Light House Hill Road-RHS						
	Ch.0.0 to Ch.105.0	Sqm	1.00	105.00	2.82		296.10
	Ch.110.0 to Ch.170.0	Sqm	1.00	60.00	4.37		262.20
	Ch.170.0 to Ch.255.0	Sqm	1.00	85.00	4.38		372.30
<u> </u>	Ch.260.0 to Ch.770.0	Sqm	1.00	510.00	3.10		1581.00
	KMC Merkera Road-LHS						+
	Ch,0.0 to Ch.670.0	Sqm	1.00	670.00	3.15		2110.50
	John Communication	Oqiii	1.00	5, 0.00	5.15		2110.00
	KMC Merkera Road-RHS						1
	Ch.0.0 to Ch.90.0	Sqm	1.00	90.00	3.22		289.80
	Ch.90.0 to Ch.155.0	Sqm	1.00	65.00	3.48		226.20
	Ch.160.0 to Ch.300.0	Sqm	1.00	140.00	3.70		518.00
				-			

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Ch.300.0 to Ch.470.0	Sqm	1.00	170.00	3.38		574.60
	Ch.470.0 to Ch.700.0	Sqm	1.00	230.00	3.77		867.10
	Footpath of Extension of Bibi alabi road RHS						
	Ch.0.0 to Ch.100.0	Sqm	1.00	100.00	2.41		241.00
	LHS	Sqm					
	Ch.0.0 to Ch.70.0	Sqm	1.00	70.00	2.54		177.80
	Ch.75.00 to Ch.90.0	Sqm	1.00	15.00	2.80		42.00
	Concrete New Road Pandeshwar Road						
	RHS						
	Ch.150.0 to Ch.260.0	Sqm	1	116	3.38		392.08
	LHS						
	Ch.150.0 to Ch.170.0 Ch.180.0 to Ch.205.0	Sqm	1	23 24.25	3.09 4.62		71.07 112.04
	Ch.210.0 to Ch.275.0	Sqm Sqm	1	68	1.65		112.04
	Rosario church Road-Part I						
	Junction area at Hamilton Road	Sqm	1	770	Area		770.00
-	Ch.60.0 to 360.0	Sqm	1	300	9.975		2992.50
	Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II	Sqm	1	903	Area		903.00
	Ch.780.0 to 900.0	Sqm	1	120	6.2		744.00
	Bunder Road						
	Ch.0.0 to Ch.1336.0	Sqm	1	1336	5.15		6880.40
-	Light House Hill Road Ch.0.0 to 100.0	Sqm	1	100	9.8		980.00
	Ch.100.0 to 210.0	Sqm	1	110	9.8		1078.00
	Ch.210.0 to Ch.340.0	Sqm	1	130	4.54		590.20
	Ch.350.0 to Ch.480.0	Sqm	1	130	5.84		759.20
	KMC Merkera Road						
	LHS Ch.180.0 to Ch.320.0	Sqm	1	140	1.34		187.60
	Ch.350.0 to Ch.660.0	Sqm	1	310	2.36		731.60
	RHS	04		0.0	2.00		701.00
	Ch.70.0 to Ch.310.0	Sqm	1	240	2.17		520.80
	Ch.310.0 to Ch.510.0	Sqm	1	200	2.81		562.00
-	Extension of Bibi Alabi Road Ch.0.0 to Ch.100.00	Sqm	1	100	7		700.00
	CH.0.0 to CH.100.00	Sqm		100	Total Qty	_	42323.06
14	KSRB 4-1.6; Providing and laying in position plain cement concrete of M 15 Grade with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 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 (KSRB 18-19,P.No.13, SI.No. 4.6)						
	Signal Pole RCC Pedstal at hamilton circle	Cum	4	1	1.00	0.10	0.40
	Electrical Pole	Cum	184	1.1	1.10	0.10	22.26
	Pandeshwar Road						
	Foundation-SWD RHS-D1	Cum	1	271	1.8	0.10	48.78
	LHS-D2	Cum	1	271	1.8	0.10	48.78
	Rosario Church Road						
ļ	Foundation	0:	4	400	1.0	2.12	F0.40
-	RHS-D4 RHS-D5	Cum Cum	1	420 334	1.2 1.8	0.10 0.10	50.40 60.12
	RHS-D5B	Cum	1	43	1.0	0.10	5.16
	RHS-D5A	Cum	1	118	1.2	0.10	14.16
	LHS-D3	Cum	1	420	1.2	0.10	50.40
<u> </u>	Bunder Road						
<b></b>	Foundation RHS-D6	Cum	1	805	1.8	0.10	144.90
	RHS-D7	Cum	1	316	2.1	0.10	66.36
	RHS-D7A	Cum	1	309	2.2	0.10	67.98
	Light House Hill Road-1		-				-
<u> </u>	Foundation	Comme	4	200	4.0	0.40	47.04
-	RHS-D8 LHS-D9	Cum Cum	1	392 392	1.2 1.2	0.10 0.10	47.04 47.04
	LHS-D13	Cum	1	384	1.2	0.10	46.08
	KMC Merkera Road						
	Foundation		-				
ļ	RHS-D10A	Cum	1	577	1.35	0.10	77.90
-	RHS-D14 LHS-10	Cum Cum	1	150 577	1.2 1.25	0.10 0.10	18.00 72.13
	Extension of Bibi Alabi Road	Juili	0	311	1.20	0.10	12.10
	RHS-15	Cum	1	100	1.65	0.10	16.50
	RCC Tree Guard at Rosario church	Cum	5	8	0.375	0.10	1.50
-	Kerb Stone Footpath						
L	Pandeshwar Road			l			

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	RHS Footpath						
-	Ch.0.0 to 40.00	Cum	1.00	40.00	0.27	0.10	1.06
	Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle	Cum Cum	0.25 0.25	3.14 3.14	0.67 0.90	0.10 0.10	0.05 0.07
	Ch.50.0 to 74.0	Cum	1.00	24.64	0.90	0.10	0.65
	Sloping Portion-Quarter Circle	Cum	1.00	4.22	0.27	0.10	0.11
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	0.82	0.10	0.06
	Ch.80.0 to 120.00	Cum	1.00	40.00	0.27	0.10	1.06
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	1.32	0.10	0.10
	Ch.130.0- Ch.260.0	Cum	1.00	130.00	0.27	0.10	3.45
	LHS Footpath Ch.20.0 to Ch.65.0	Cum	1.00	45.00	0.27	0.10	1.19
	Ch.65.0 to Ch.130.0	Cum	1.00	65.00	0.27	0.10	1.72
	Ch.130.0 to Ch.200.0	Cum	1.00	70.00	0.27	0.10	1.86
	Pandeshwar Road Median (New and Extended)						
	Ch.140.0 to Ch.185.0	Cum	2.00	45.00	0.27	0.10	2.39
	Ch.187.0 to Ch.190.0	Cum	2.00	3.00	0.27	0.10	0.16
	Rosario Church Road-I						
	RHS Ch.70.0 to 284.0	Cum	1.00	214.00	0.27	0.10	F 67
	Sloping Portion-Quarter Circle	Cum Cum	1.00 0.25	3.14	0.27	0.10 0.10	5.67 0.02
	Ch.90 Triangular Portion	Cum	0.23	2.83	0.27	0.10	0.02
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	0.27	0.10	0.02
	Ch.300.0 to Ch.330.0	Cum	1.00	29.72	0.27	0.10	0.79
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	0.27	0.10	0.02
	Ch.337.0 to Ch.405.0	Cum	1.00	67.00	0.27	0.10	1.78
	Sloping Portion-Rectangular	Cum	1.00	3.00	0.27	0.10	0.08
	Ch.420.0 to Ch.490.0 Sloping Portion-Quarter Circle	Cum Cum	1.00 0.25	75.00 3.14	0.27 0.27	0.10 0.10	1.99 0.02
	LHS	Cum	0.25	0.00	0.27	0.10	0.02
	Ch.60.0 to Ch.145.0	Cum	1.00	81.00	0.27	0.10	2.15
	Sloping Portion-Rectangular	Cum	1.00	2.70	0.27	0.10	0.07
	Sloping Portion-Rectangular	Cum	1.00	3.56	0.27	0.10	0.09
	Ch.55.0 to 65.0-Trapezoidal	Cum	1.00	10.00	0.27	0.10	0.27
	Ch.65.0 to Ch.260.0	Cum	1.00	92.00	0.27	0.10	2.44
	Sloping Portion-Rectangular	Cum Cum	1.00	2.50 2.50	0.27 0.27	0.10 0.10	0.07
	Sloping Portion-Rectangular Ch.270.0 to Ch.300.00	Cum	1.00	28.20	0.27	0.10	0.07 0.75
	Ch.310.0 to Ch.330.0	Cum	1.00	19.57	0.27	0.10	0.73
	Ch.340.0 to Ch.350.0	Cum	1.00	9.70	0.27	0.10	0.26
	Ch.360.0 to Ch.390.0	Cum	1.00	28.42	0.27	0.10	0.75
	Ch.400.0 to Ch.465.0	Cum	1.00	65.50	0.27	0.10	1.74
	Rosario Church Road-Part II-RHS		4.00	0.40	0.07	0.40	
	Ch.500-Odd shape Ch.510.0 to Ch.570.0	Cum Cum	1.00	2.18 63.00	0.27 0.27	0.10 0.10	0.06 1.67
	Ch.570.0 to Ch.625.0	Cum	1.00	56.45	0.27	0.10	1.50
	Ch.625.0 to Ch.698.0	Cum	1.00	73.25	0.27	0.10	1.94
	Ch.700.0 to Ch.753.0	Cum	1.00	51.57	0.27	0.10	1.37
	Ch.753.0 to Ch.880.0	Cum	1.00	127.00	0.27	0.10	3.37
	Light House Hill Road-LHS	0	4.00	040.00	0.07	0.40	
	Ch.0.0 to Ch.210.0 Ch.210.0 to Ch.260.0	Cum Cum	1.00	210.00 50.00	0.27 0.27	0.10 0.10	5.57 1.33
	Ch.240.0 to Ch.370.0	Cum	1.00	130.00	0.27	0.10	3.45
	Ch.350.0 to Ch.500.0	Cum	1.00	150.00	0.27	0.10	3.98
	Ch.500 to Ch.670.0	Cum	1.00	170.00	0.27	0.10	4.51
	Ch.650.0 to Ch.800.0	Cum	1.00	150.00	0.27	0.10	3.98
	Light House Hill Road-RHS	Cum	1.00	105.00	0.27	0.10	0.70
	Ch.0.0 to Ch.105.0 Ch.110.0 to Ch.170.0	Cum	1.00	105.00 60.00	0.27 0.27	0.10	2.78 1.59
	Ch.170.0 to Ch.255.0	Cum	1.00	85.00	0.27	0.10	2.25
	Ch.260.0 to Ch.770.0	Cum	1.00	510.00	0.27	0.10	13.52
	KMC Merkera Road-LHS	Cum	0.00	0.00	0.27	0.10	0.00
	Ch,0.0 to Ch.670.0	Cum	1.00	670.00	0.27	0.10	17.76
	VMC Markers Dood DUC			<del>                                     </del>			
	KMC Merkera Road-RHS Ch.0.0 to Ch.90.0	Cum	1.00	90.00	0.27	0.10	2.39
	Ch.90.0 to Ch.155.0	Cum	1.00	65.00	0.27	0.10	1.72
	Ch.160.0 to Ch.300.0	Cum	1.00	140.00	0.27	0.10	3.71
	Ch.300.0 to Ch.470.0	Cum	1.00	170.00	0.27	0.10	4.51
	Ch.470.0 to Ch.700.0	Cum	1.00	230.00	0.27	0.10	6.10
		Cum		ļ	Total Qty		1028.40
			l	1			

Sr. No.	Description	Unit	No's	L	В	н	Qty.
15	KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-1) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (SI.No.20.4 of KPWD SR 2018-19)						
е	Signal Pole RCC Pedstal at hamilton Circle	Cum	4	1	1	0.15	0.60
	Footpath Pandeshwar Road						
	RHS Footpath						
	Ch.0.0 to 40.00	Cum	1.00	40.00	2.21	0.15	13.25
	Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle	Cum Cum	0.25	3.14 3.14	2.46 3.35	0.15 0.15	0.29
	Ch.50.0 to 74.0	Cum	1.00	24.64	1.81	0.15	6.67
	Sloping Portion-Quarter Circle	Cum	1.00	4.22	1.00	0.15	0.63
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	3.03	0.15	0.36
	Ch.80.0 to 120.00 Sloping Portion-Quarter Circle	Cum Cum	1.00 0.25	40.00 3.14	1.98 4.88	0.15 0.15	11.85 0.58
	Ch.130.0- Ch.260.0	Cum	1.00	130.00	1.62	0.15	31.59
	LHS Footpath						
	Ch.20.0 to Ch.65.0	Cum	1.00	45.00	1.80	0.15	12.15
	Ch.65.0 to Ch.130.0 Ch.130.0 to Ch.200.0	Cum Cum	1.00	65.00 70.00	2.88	0.15 0.15	28.13 21.10
	Rosario Church Road-I	Cuiii	1.00	70.00	2.01	0.15	21.10
	RHS						
	Ch.70.0 to 284.0	Cum	1.00	214.00	2.40	0.15	77.04
	Sloping Portion-Quarter Circle Ch.90 Triangular Portion	Cum Cum	0.25 0.50	3.14 2.83	6.40 2.56	0.15 0.15	0.75 0.54
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	6.55	0.15	0.77
	Ch.300.0 to Ch.330.0	Cum	1.00	29.72	2.40	0.15	10.70
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	3.39	0.15	0.40
	Ch.337.0 to Ch.405.0 Sloping Portion-Rectangular	Cum	1.00	67.00 3.00	2.16 2.60	0.15	21.71 1.17
	Ch.420.0 to Ch.490.0	Cum Cum	1.00	75.00	2.40	0.15 0.15	27.00
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	6.40	0.15	0.75
	LHS						
	Ch.60.0 to Ch.145.0	Cum	1.00	81.00	2.60	0.15	31.59
	Sloping Portion-Rectangular Sloping Portion-Rectangular	Cum Cum	1.00	2.70 3.56	2.50 3.56	0.15 0.15	1.01 1.90
	Ch.55.0 to 65.0-Trapezoidal	Cum	1.00	10.00	4.28	0.15	6.42
	Ch.65.0 to Ch.260.0	Cum	1.00	92.00	2.50	0.15	34.50
	Sloping Portion-Rectangular	Cum	1.00	2.50	4.11	0.15	1.54
	Sloping Portion-Rectangular Ch.270.0 to Ch.300.00	Cum Cum	1.00	2.50 28.20	4.00 2.50	0.15 0.15	1.50 10.58
	Ch.310.0 to Ch.330.0	Cum	1.00	19.57	2.50	0.15	7.34
	Ch.340.0 to Ch.350.0	Cum	1.00	9.70	2.50	0.15	3.64
	Ch.360.0 to Ch.390.0	Cum	1.00	28.42	2.50	0.15	10.66
	Ch.400.0 to Ch.465.0	Cum	1.00	65.50	2.50	0.15	24.56
	Light House Hill Road-LHS						
	Ch.0.0 to Ch.210.0	Cum	1.00	210.00	3.76	0.15	118.44
	Ch.210.0 to Ch.260.0	Cum	1.00	50.00	9.92	0.15	74.37
	Ch.240.0 to Ch.370.0 Ch.350.0 to Ch.500.0	Cum Cum	1.00	130.00 150.00	2.04 10.66	0.15 0.15	39.85 239.85
	Ch.500 to Ch.670.0	Cum	1.00	170.00	4.12	0.15	105.06
	Ch.650.0 to Ch.800.0	Cum	1.00	150.00	2.25	0.15	50.63
	Light House Hill Road-RHS Ch.0.0 to Ch.105.0	Cum	1.00	105.00	2.82	0.15	44.42
	Ch.110.0 to Ch.170.0	Cum	1.00	60.00	4.37	0.15	39.33
	Ch.170.0 to Ch.255.0	Cum	1.00	85.00	4.38	0.15	55.85
	Ch.260.0 to Ch.770.0	Cum	1.00	510.00	3.10	0.15	237.15
	KMC Merkera Road-LHS						
	Ch,0.0 to Ch.670.0	Cum	1.00	670.00	3.15	0.15	316.58
	,						* *
	KMC Merkera Road-RHS		4.00	00.00	0.00	0.45	40.47
	Ch.0.0 to Ch.90.0 Ch.90.0 to Ch.155.0	Cum Cum	1.00	90.00 65.00	3.22 3.48	0.15 0.15	43.47 33.93
	Ch.160.0 to Ch.300.0	Cum	1.00	140.00	3.70	0.15	77.70
•	Ch.300.0 to Ch.470.0	Cum	1.00	170.00	3.38	0.15	86.19
	Ch.470.0 to Ch.700.0	Cum	1.00	230.00	3.77	0.15	130.07
	Paver block on Carriageway						
	Rosario Church Road-LHS						
•	Ch.60.0 to Ch.145.0	Cum	1	84.54	2.46	0.15	31.20
	Ch.155.0 to Ch.260.0	Cum	1	107	3.87	0.15	62.11
	Ch.265.0 to Ch.300.0	Cum	1	34	2.73	0.15	13.92

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Ch.335.0 to Ch.350.0	Cum	1	14	1.45	0.15	3.05
	Ch.360.0 to Ch.390.0 Ch.400.0 to Ch.470.0	Cum	1	32.7 68.63	1.7 3.44	0.15 0.15	8.34 35.41
	Rosario Church Road-Part II-LHS	Cuiii	ı	00.03	3.44	0.15	33.41
	Ch.494.0 to Ch.520.0	Cum	1	23	1.98	0.15	6.83
	Gate Entrance at Ch.520.0 Ch.525.0 to Ch.550.0	Cum	1	6.33 25.96	4.17 4.6	0.15 0.15	3.96 17.91
	Ch.523.0 to Ch. 550.0	Cum	1	4.23	26	0.15	16.50
	Gate Entrance at Ch.550	Cum	1	7.54	3.73	0.15	4.22
	Ch.550.0 to Ch.565.0 Ch.570.0 to Ch.600.0	Cum	1	2.77 2.23	12.52 27	0.15 0.15	5.20 9.03
	Ch.600.0 to Ch.640.0	Cum	1	0.76	38	0.15	4.33
	Ch.640.0 to Ch.740.0	Cum	1	102	0.45	0.15	6.89
	Ch.750.0 to Ch. 890.0  Rosario Church Road-Part II-RHS	Cum	1	158	1	0.15	23.70
	Ch.500-Odd shape	Cum	1	2.18	7.5	0.15	2.45
	Ch.510.0 to Ch.570.0	Cum	1	63	2.34	0.15	22.11
	Ch.570.0 to Ch.625.0 Ch.625.0 to Ch.698.0	Cum	1	56.45 73.25	2.32 1.67	0.15 0.15	19.64 18.35
	Ch.700.0 to Ch.753.0	Cum	1	51.57	1.02	0.15	7.89
	Ch.753.0 to Ch.880.0	Cum	1	127	0.94	0.15	17.91
	Bunder Road-LHS Ch.0.0 to Ch. 125.0	Cum	1	119	2.54	0.15	45.34
	Ch.125.1 to Ch. 160.0	Cum	1	33	2.31	0.15	11.43
	Ch.160.1 to 172.0( including LHS footpath	Cum	1	16	7.74	0.15	18.58
	Road at Ch.180.0 RHS Side Footpath Ch. 180.0 to Ch.210.0	Cum	1	15.61 27.69	1.44 0.94	0.15 0.15	3.37
	Ch. 180.0 to Ch.210.0 Ch.208.0 to Ch.223.0	Cum	1	17.27	2.3	0.15	5.96
	Ch.223.0 to Ch.245.0	Cum	1	28	1.51	0.15	6.34
	Road at Ch.250.0 LHS Side Footpath	Cum	1	10 10	1.4 7.2	0.15 0.15	2.10 10.80
	Road at Ch.250.0 RHS Side Footpath Ch.260.0 to Ch.280.0	Cum	1	22.69	2.82	0.15	9.60
	Ch.280.0 to Ch.300.0	Cum	1	21.1	2.8	0.15	8.86
	Ch.300.0 to Ch.340.0	Cum	1	37	5.39	0.15	29.91
	Ch.345.0 to Ch.382.0 Ch.390.0 to Ch.440.0	Cum Cum	1	38.65 58.67	7.09 3.76	0.15 0.15	41.10 33.09
	Ch.440.1 to Ch. 650.0	Cum	1	120	1.2	0.15	21.60
	Ch. 690.0 to Ch.880.0	Cum	1	183	0.5	0.15	13.73
	Ch.880.0 to Ch.1170.0 Ch.1170.0 to Ch.1212.0	Cum Cum	1	86 42.33	2.2 1.61	0.15 0.15	28.38 10.22
	Ch.1220.0 to 1280.0	Cum	1	65.59	3.54	0.15	34.83
	Ch.1280.0 to 1320.0	Cum	1	34.24	1.11	0.15	5.70
	Ch.1320.0 to Ch.1330.0  Bunder Road-RHS	Cum	1	7.54	3.11	0.15	3.52
	Ch.0.0 to Ch. 18.0	Cum	1	13.61	1.97	0.15	4.02
	Ch.18.0 to Ch.30.0	Cum	1	13.44	1.645	0.15	3.32
	Ch.30.0 to Ch.50.0	Cum	0.5	19.17	2.137	0.15	3.07
	Ch.50.0 to Ch.180.0	Cum	1	130	3.31	0.15	64.55
	Ch.180.0 to Ch.245.0	Cum	1	65	5.35	0.15	52.16
	Ch.250.0 to Ch.555.0	Cum	1	305	2.6	0.15	118.95
	Ch.550 to Ch.580 Ch.710.0 to Ch.810	Cum	1	30	2.5	0.15	11.25
	Ch.820.0 to Ch.992.0	Cum	1	100 172	3 6.63	0.15 0.15	45.00 171.05
	Ch.900.0 to Ch.1238.0	Cum	1	338	1.2	0.15	60.84
	Ch.1238.0 to Ch.1336.0	Cum	1	98	2.32	0.15	34.10
	SWD						
	Pandeshwar Road						
	Foundation-SWD	Cum	4	071	1.00	0.15	70.47
	RHS-D1 LHS-D2	Cum	1	271 271	1.80	0.15 0.15	73.17 73.17
	Rosario Church Road	Odili		211	1.00	0.10	73.17
	Foundation						
	RHS-D4	Cum	1	420	1.20	0.15	75.60
	RHS-D5	Cum	1	334	1.80	0.15	90.18
	RHS-D5B	Cum	1	43	1.20	0.15	7.74
	RHS-D5A LHS-D3	Cum	1	118 420	1.20 1.20	0.15 0.15	75.60
	Bunder Road	Culli	'	420	1.20	0.15	10.00
	Foundation						
	RHS-D6	Cum	1	805	1.80	0.15	217.35
	RHS-D7	Cum	1	316	2.10	0.15	99.54
	RHS-D7A	Cum	1	309	2.20	0.15	101.97
	Light House Hill Road-1						
-	Foundation RHS-D8	Cum	1	392	1.20	0.15	70.56
	LHS-D9	Cum	1	392	1.20	0.15	70.56
	LHS-D13	Cum	1	384	1.20	0.15	69.12
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Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	KMC Merkera Road						
	Foundation RHS-D10A	0	4		4.05	0.45	440.04
	RHS-D10A	Cum Cum	1	577 150	1.35 1.20	0.15 0.15	116.84 27.00
	LHS-10	Cum	1	577	1.25	0.15	108.19
	Extension of Bibi Alabi Road	• • • • • • • • • • • • • • • • • • • •		0	20	51.10	100110
	RHS-15	Cum	1	100	1.65	0.15	24.75
	Concrete New Road						
	Pandeshwar Road						
	RHS Ch.150.0 to Ch.260.0	C:	1	116	2.20	0.45	50.04
	LHS	Cum	1	116	3.38	0.15	58.81
	Ch.150.0 to Ch.170.0	Cum	1	23	3.09	0.15	10.66
	Ch.180.0 to Ch.205.0	Cum	1	24.25	4.62	0.15	16.81
	Ch.210.0 to Ch.275.0	Cum	1	68	1.65	0.15	16.83
	Rosario church Road-Part I						
	Junction area at Hamilton Road	Cum	1	770	Area	0.15	115.50
	Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road	Cum Cum	1	300	9.975	0.15 0.15	448.88
	Rosario church Road-Part II	Cum	-	903	Area	0.15	135.45
	Ch.780.0 to 900.0	Cum	1	120	6.2	0.15	111.60
	Bunder Road						
	Ch.0.0 to Ch.1336.0	Cum	1	1336	6.7	0.15	1342.68
	Light House Hill Road						
	Ch.10.0 to 100.0	Cum	1	93	1.13	0.15	15.76
	Ch.100.0 to 210.0 Ch.210.0 to Ch.340.0	Cum Cum	1	175	1	0.15 0.15	26.25
	Ch.350.0 to Ch.480.0	Cum	1	130 130	4.54 5.84	0.15	88.53 113.88
	KMC Merkera Road	Cuiii	'	130	3.04	0.13	113.00
	LHS						
	Ch.180.0 to Ch.320.0	Cum	1	140	1.34	0.15	28.14
	Ch.350.0 to Ch.660.0	Cum	1	310	2.36	0.15	109.74
	RHS						
	Ch.70.0 to Ch.310.0 Ch.310.0 to Ch.510.0	Cum	1	240	2.17	0.15	78.12
	CII.310.0 to CII.310.0	Cum	1	200	2.81	0.15	84.30
	Extension of Bibi Alabi Road						
	Ch.0.0 to Ch.100.00	Cum	1	100	7	0.15	105.00
	Footpath of Extension of Bibi alabi road						
	RHS Ch.0.0 to Ch.100.0	Cum	1	100	0.44	0.15	20.45
	LHS	Cum	-	100	2.41	0.15	36.15 0.00
	Ch.0.0 to Ch.70.0	Cum	1	70	2.54	0.15	26.67
	Ch.75.00 to Ch.90.0	Cum	1	15	2.8	0.15	6.30
		Cum			Total Qty	' <b>.</b>	7658.91
16	KSRB 4.2.1 : Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications.  (KSRB 18-19,Page No 14,SI No :4.10)						
	Signal Pole RCC Pedstal at Hamilton Circle Base	Cum	4	1.00	1.00	0.20	0.80
	Column	Cum	4	0.50	0.50	0.70	0.70
	Electrical Pole	Cum	101	0.75	0.75	0.00	20.70
	Foundation Column	Cum Cum	184 184	0.75 0.3	0.75 0.30	0.20 0.70	20.70 11.59
	SWD	2 4.11	.01	0.0	5.55	5.75	. 1.00
	Pandeshwar Road						
	Foundation-SWD	Cum	1	074	1.00	0.15	40.70
	RHS-D1 LHS-D2	Cum	1	271 271	1.20 1.20	0.15	48.78 48.78
	Wall-SWD						
	RHS-D1	Cum	2	271	0.20	1.19	129.00
	LHS-D2 Top Slab	Cum	2	271	0.20	0.60	65.04
	RHS-D1	Cum	1	271	1.00	0.20	54.20
	LHS-D2	Cum	1	271	1.00	0.20	54.20
	Deduction of Access Cover						

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	RHS-D1 LHS-D2	Cum	-54 -54	0.60	0.45 0.45	0.20	-2.92 -2.92
	LN3-02	Cum	-34	0.60	0.45	0.20	-2.92
	Rosario Church Road						
	Foundation						
	RHS-D4	Cum	1	420	1.20	0.15	75.60
	RHS-D5	Cum	1	334	1.80	0.15	90.18
	RHS-D5B RHS-D5A	Cum	1	43 118	1.20 1.20	0.15 0.15	7.74 21.24
	LHS-D3	Cum	1	420	1.20	0.15	75.60
	Wall	Ouiii	'	720	1.20	0.10	70.00
	RHS-D4	Cum	2	420	0.20	0.95	159.60
	RHS-D5	Cum	2	334	0.20	1.35	180.36
	RHS-D5B	Cum	2	43	0.20	0.60	10.32
	RHS-D5A	Cum	2	118	0.20	0.60	28.32
	LHS-D3 Top Slab	Cum	2	420	0.20	1.25	210.00
	RHS-D4	Cum	1	420	1.00	0.20	84.00
	RHS-D5	Cum	1	334	1.60	0.20	106.88
	RHS-D5B	Cum	1	43	1.00	0.20	8.60
	RHS-D5A	Cum	1	118	1.00	0.20	23.60
	LHS-D3	Cum	1	420	1.00	0.20	84.00
	Deduction of Access Cover		0.4	0.00	0.45	2.22	
	RHS-D4 RHS-D5	Cum	-84 -67	0.60 0.60	0.45 0.45	0.20 0.20	-4.54 -3.62
	RHS-D5B	Cum	-67 -9	0.60	0.45	0.20	-3.62 -0.49
	RHS-D5A	Cum	-24	0.60	0.45	0.20	-1.30
	LHS-D3	Cum	-84	0.60	0.45	0.20	-4.54
	Bunder Road						
	Foundation	1					0.4= 0=
	RHS-D6	Cum	1	805	1.80	0.15	217.35
	RHS-D7 RHS-D7A	Cum	1	316 309	2.10 2.20	0.15 0.15	99.54 101.97
	Wall	Cuili	'	309	2.20	0.13	101.97
	RHS-D6	Cum	2	805	0.20	1.22	392.84
	RHS-D7	Cum	2	316	0.20	1.23	155.47
	RHS-D7A	Cum	2	309	0.25	1.67	258.02
	Top Slab						
	RHS-D6	Cum	1	805	1.60	0.20	257.60
	RHS-D7 RHS-D7A	Cum	1	316 309	1.90 2.00	0.20 0.20	120.08 123.60
	Deduction of Access Cover	Cum	'	309	2.00	0.20	123.00
	RHS-D6	Cum	-161	0.60	0.45	0.20	-8.69
	RHS-D7	Cum	-63	0.60	0.45	0.20	-3.40
	RHS-D7A	Cum	-62	0.60	0.45	0.20	-3.35
	Light House Hill Road-1 Foundation						
	RHS-D8	Cum	1	392	1.20	0.15	70.56
	LHS-D9	Cum	1	392	1.20	0.15	70.56
	LHS-D13	Cum	1	384	1.20	0.15	69.12
	Wall						
	RHS-D8	Cum	2	392	0.20	1.01	158.37
-	LHS-D9	Cum	2	392	0.20	1.01	158.37
-	LHS-D13 Top Slab	Cum	2	384	0.20	0.60	92.16
	RHS-D8	Cum	1	392	1.00	0.20	78.40
	LHS-D9	Cum	1	392	1.00	0.20	78.40
	LHS-D13	Cum	1	384	1.00	0.20	76.80
	Deduction of Access Cover						
<u> </u>	RHS-D8	Cum	-78 -70	0.60	0.45	0.20	-4.21
-	LHS-D9 LHS-D13	Cum	-78 -77	0.60	0.45	0.20 0.20	-4.21 -4.16
<b>—</b>	בו ט-טוט	Culli	-11	0.60	0.45	0.20	<del>-4</del> .10
	KMC Merkera Road	1				† †	
	Foundation						
	RHS-D10A	Cum	1	577	1.35	0.15	116.84
	RHS-D14	Cum	1	150	1.20	0.15	27.00
ļ	LHS-10	Cum	1	577	1.25	0.15	108.19
-	Wall RHS-D10A	Cum	2	577	0.20	1.23	283.88
<b> </b>	RHS-D104	Cum	2	150	0.20	0.60	36.00
	LHS-10	Cum	2	577	0.20	1.23	283.88
1	Top Slab						
		Cum	1	577	1.15	0.20	132.71
	RHS-D10A					· T	00.00
	RHS-D14	Cum	1	150	1.00	0.20	30.00
	RHS-D14 LHS-10		1	150 577	1.00 1.05	0.20	30.00 121.17
	RHS-D14 LHS-10 Deduction of Access Cover	Cum Cum	1	577	1.05	0.20	121.17
	RHS-D14 LHS-10 Deduction of Access Cover RHS-D10A	Cum Cum	-115	577 0.60	1.05 0.45	0.20	121.17 -6.21
	RHS-D14 LHS-10 Deduction of Access Cover	Cum Cum	1	577	1.05	0.20	121.17

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Extension of Bibi Alabi Road						
	Foundation	C:::==	4	400	4.05	0.45	20.25
	RHS-D15 Wall	Cum	1	100	1.35	0.15	20.25
	RHS-D15	Cum	2	100	1.20	0.20	48.00
	Top Slab						
	RHS-D15	Cum	1	100	1.15	0.20	23.00
	Deduction of Access Cover RHS-D15	Cum	-20	0.60	0.45	0.20	1.00
	Electrical Chamber	Cum	-20	0.60	0.45	0.20	-1.08
	Foundation	Cum	211	2.70	1.80	0.20	205.09
	Long Wall	Cum	422	2.40	0.20	2.10	425.38
	Short Wall	Cum	422	1.10	0.20	2.10	194.96
	RCC Tree Guard at Rosario church	Cum	5	8.00	0.18	1.05	7.35
	Footpath Beam Box Culvert	Cum	1	6014.00	0.15	0.20	180.42
	Rosario Church						
	Box Culvert-Slab	Cum	10	20.00	0.20	2.00	80.00
	Box Culvert-Wall	Cum	10	20.00	0.20	1.50	60.00
	Bunder Road Box Culvert-Slab	Cum	10	20.00	0.20	2.00	80.00
	Box Culvert-Wall	Cum Cum	10	20.00	0.20	2.00 1.50	60.00
	BOX GUIVER-VVali	Cum	10	20.00	Total Qty		6639.72
17	KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2  (KSRB 18-19,Page No 16,SI No : 4.28)						
	Signal Pole RCC Pedstal at hamilton circle	Cam	16	4.00		0.20	2.20
	Base Column	Sqm Sqm	16 16	1.00 0.50		0.20 0.70	3.20 5.60
	Electrical Pole	Oqiii	10	0.00		0.70	0.00
	Foundation	Sqm	736	0.75		0.20	110.40
	Column	Sqm	736	0.3		0.70	154.56
	SWD						
	Pandeshwar Road Foundation-SWD						
	RHS-D1	Sqm	2	271		0.15	81.30
	LHS-D2	Sqm	1	271		0.15	40.65
	Wall-SWD						
	RHS-D1	Sqm	4	271		1.19	1289.96
	LHS-D2 Top Slab-Bottom	Sqm	4	271		0.6	650.40
	RHS-D1	Sqm	1	271	1		271.00
	LHS-D2	Sqm	1	271	1		271.00
	Top Slab-Sides						
	RHS-D1	Sqm	2	271		0.2	108.40
	LHS-D2	Sqm	2	271		0.2	108.40
	Deduction of Access Cover						
	RHS-D1	Sqm	-54	0.6	0.45		-14.58
	LHS-D2	Sqm	-54	0.6	0.45		-14.58
	Rosario Church Road Foundation						
	RHS-D4	Sqm	2	420		0.15	126.00
	RHS-D5	Sqm	2	334		0.15	100.20
	RHS-D5B	Sqm	2	43		0.15	12.90
	RHS-D5A	Sqm	2	118		0.15	35.40
	LHS-D3 Wall	Sqm	2	420		0.15	126.00
	RHS-D4	Sqm	4	420		0.95	1596.00
	RHS-D5	Sqm	4	334		1.35	1803.60
	RHS-D5B	Sqm	4	43		0.6	103.20
	RHS-D5A	Sqm	4	118		0.6	283.20
	LHS-D3	Sqm	4	420		1.25	2100.00
	Top Slab-Bottom RHS-D4	Sqm	1	420	1		420.00
	RHS-D5	Sqm	1	334	1.6		534.40
	RHS-D5B	Sqm	1	43	1		43.00
	RHS-D5A	Sqm	1	118	1		118.00
	LHS-D3	Sqm	1	420	1		420.00
	Top Slab-Sides RHS-D4	Sqm	2	420		0.2	168.00
	RHS-D5	Sqm	2	334		0.2	133.60
	RHS-D5B	Sqm	2	43		0.2	17.20
	RHS-D5A	Sqm	2	118		0.2	47.20
	LHS-D3	Sqm	2	420		0.2	168.00
-	Deduction of Access Cover						
L	Deduction of Access Cover			l	l l		

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	RHS-D4	Sqm	-84	0.6	0.45		-22.68
	RHS-D5	Sqm	-67	0.6	0.45		-18.09
	RHS-D5B RHS-D5A	Sqm	-9 -24	0.6 0.6	0.45 0.45		-2.43 -6.48
	LHS-D3	Sqm Sqm	-84	0.6	0.45		-22.68
		Oqiii	01	0.0	0.10		22.00
	Bunder Road						
	Foundation					2.1-	
	RHS-D6 RHS-D7	Sqm	1	805 316		0.15 0.15	120.75 47.40
	RHS-D7A	Sqm Sqm	1	309		0.15	46.35
	Wall	Oqiii	'	000		0.10	0.00
	RHS-D6	Sqm	4	805		1.22	3928.40
	RHS-D7	Sqm	4	316		1.23	1554.72
	RHS-D7A	Sqm	4	309		1.67	2064.12
	Top Slab-Bottom RHS-D6	Sqm	1	805	1.6		0.00 1288.00
	RHS-D7	Sqm	1	316	1.9		600.40
	RHS-D7A	Sqm	1	309	2		618.00
	Top Slab-Sides						0.00
	RHS-D6	Sqm	2	805		0.2	322.00
	RHS-D7	Sqm	2	316		0.2	126.40
	RHS-D7A  Deduction of Access Cover	Sqm	2	309		0.2	123.60 0.00
	RHS-D6	Sqm	-161	0.6	0.45		-43.47
	RHS-D7	Sqm	-63	0.6	0.45		-17.01
	RHS-D7A	Sqm	-62	0.6	0.45		-16.74
<b></b>	Light House Hill Road-1	-					
<b> </b>	Foundation RHS-D8	Sqm	1	392		0.15	58.80
	LHS-D9	Sqm	1	392		0.15	58.80
	LHS-D13	Sqm	1	384		0.15	57.60
	Wall						
	RHS-D8	Sqm	4	392		1.01	1583.68
	LHS-D9 LHS-D13	Sqm Sqm	4	392 384		1.01 0.6	1583.68 921.60
	Top Slab-Bottom	Oqiii		304		0.0	921.00
	RHS-D8	Sqm	1	392	1		392.00
	LHS-D9	Sqm	1	392	1		392.00
	LHS-D13	Sqm	1	384	1		384.00
	Top Slab-Sides RHS-D8	Sqm	2	392		0.2	156.80
	LHS-D9	Sqm	2	392		0.2	156.80
	LHS-D13	Sqm	2	384		0.2	153.60
-	Deduction of Access Cover	C	70	0.0	0.45		04.00
	RHS-D8 LHS-D9	Sqm Sqm	-78 -78	0.6 0.6	0.45 0.45		-21.06 -21.06
	LHS-D13	Sqm	-77	0.6	0.45		-20.79
	KMC Merkera Road						
-	Foundation	C		F77		0.45	00.55
	RHS-D10A RHS-D14	Sqm Sqm	1	577 150		0.15 0.15	86.55 22.50
	LHS-10	Sqm	1	577		0.15	86.55
	Wall	- 1					
	RHS-D10A	Sqm	4	577		1.23	2838.84
<u> </u>	RHS-D14	Sqm	4	150		0.6	360.00
	LHS-10 Top Slab-Bottom	Sqm	4	577		1.23	2838.84
	RHS-D10A	Sqm	1	577	1.15		663.55
	RHS-D14	Sqm	1	150	1		150.00
	LHS-10	Sqm	1	577	1.05		605.85
	Top Slab-Sides					0.0	000.00
<b></b>	RHS-D10A RHS-D14	Sqm Sqm	2	577 150		0.2	230.80 60.00
	LHS-10	Sqm	2	577		0.2	230.80
	Deduction of Access Cover	- Cqiii		J.,		V. <u>L</u>	200.00
	RHS-D10A	Sqm	-115	0.6	0.45		-31.05
	RHS-D14	Sqm	-30	0.6	0.45		-8.10
ļ	LHS-10	Sqm	-115	0.6	0.45		-31.05
<b> </b>	Extension of Bibi Alabi Road						
	Foundation	1					
	RHS-D15	Sqm	2	100		0.15	30.00
	Wall						
	RHS-D15	Sqm	4	100	1.20		480.00
ļ	Top Slab	C~~	1	100	0.75		75.00
<b> </b>	RHS-D15  Deduction of Access Cover	Sqm	'	100	0.75		75.00
	RHS-D15	Sqm	-20	0.60	0.45		-5.40
	Electrical Chamber						

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Foundation-Long Side	Sqm	422	2.70		0.20	227.88
	Foundation-Short Side	Sqm	422	1.80		0.20	151.92
	Long Wall	Sqm	844	2.40		2.10	4253.76
	Short Wall	Sqm	844	1.10		2.10	1949.64
	Tree Guard	Sqm	10	8.00		1.05	84.00
	Footpath Beam-side	Sqm	1	6014.00		0.20	1202.80
	Box Culvert						0.00
	Rosario Church	•	40				0.00
	Box Culvert-Slab	Sqm	10	20		2	400.00
	Box Culvert-Wall	Sqm	20	20		1.5	600.00
	Bunder Road	Sqm	40	00			0.00
	Box Culvert-Slab Box Culvert-Wall	Sqm	10 20	20 20		1.5	400.00
	DOX Curvert-vvali	Sqm	20	20			600.00
		Sqm			Total Qty	/. 	46502.30
18	KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3. do with TMT bars Fe500 (KSRB 18-19,Page No 18,SI No : 4.46.2)			Cum	Kg/Cum	Kg	МТ
	Signal Footing	MT	1	0.80	50.00	40.00	0.04
	Signal Column	MT	1	0.70	50.00	35.00	0.04
	Electrical Pole-Pedstal-Footing	MT	1	20.70	60.00	1242.00	1.24
	Electrical Pole-Pedstal-Column	MT	1	11.59	60.00	695.52	0.70
	SWD and Electrical Chamber	MT	1	6138.15	80.00	491051.92	491.05
	Footpath Beam	MT	1	180.42	40.00	7216.80	7.22
	Tree Guard	MT	1	7.35	40.00	294.00	0.29
	Box Culvert	MT	1	280.00	100.00	28000.00	28.00
		MT		6639.71	-0.01	Total	528.58
	Concrete Pavement Layer						
19	transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305 (KSRB 18-19,Page No 146,SI No : 19.62 & 17.4)						
	Pandeshwar Road						
	RHS						
	Ch.150.0 to Ch.260.0	Cum	1	116	3.38	0.50	196.04
	LHS			_			
	Ch.150.0 to Ch.170.0	0					
		Cum	1	23	3.09	0.50	35.54
	Ch.180.0 to Ch.205.0	Cum	<u>1</u> 1	23 24.25	3.09 4.62	0.50 0.50	
	Ch.180.0 to Ch.205.0 Ch.210.0 to Ch.275.0						35.54
		Cum	1	24.25	4.62	0.50	35.54 56.02
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road	Cum Cum	1 1	24.25 68 770	4.62 1.65 Area	0.50 0.50 0.50	35.54 56.02 56.10
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0	Cum Cum Cum	1 1 1 1	24.25 68 770 300	4.62 1.65 Area 9.975	0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road	Cum Cum	1 1	24.25 68 770	4.62 1.65 Area	0.50 0.50 0.50	35.54 56.02 56.10
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II	Cum Cum Cum Cum Cum	1 1 1 1	24.25 68 770 300 903	4.62 1.65 Area 9.975 Area	0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0	Cum Cum Cum	1 1 1 1	24.25 68 770 300	4.62 1.65 Area 9.975	0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II	Cum Cum Cum Cum Cum	1 1 1 1	24.25 68 770 300 903	4.62 1.65 Area 9.975 Area	0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road	Cum Cum Cum Cum Cum Cum	1 1 1 1 1 1	24.25 68 770 300 903	4.62 1.65 Area 9.975 Area 6.2	0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0	Cum Cum Cum Cum Cum Cum	1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336	4.62 1.65 Area 9.975 Area 6.2 5.15	0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road	Cum	1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8	0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0	Cum	1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0	Cum	1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8	0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road	Cum	1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS	Cum	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54 5.84	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0	Cum	1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 4.54 5.84	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0  Ch.350.0 to Ch.660.0	Cum	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54 5.84	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0  Ch.350.0 to Ch.660.0  RHS	Cum	1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 140 310	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54 5.84	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.660.0  RHS  Ch.70.0 to Ch.310.0	Cum	1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 140 310	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54 5.84 1.34 2.36	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80 260.40
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0  Ch.350.0 to Ch.660.0  RHS	Cum	1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 140 310	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54 5.84	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.660.0  RHS  Ch.70.0 to Ch.310.0	Cum	1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 140 310	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 9.8 4.54 5.84 1.34 2.36	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80 260.40
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.100.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0  Ch.350.0 to Ch.660.0  RHS  Ch.70.0 to Ch.310.0  Ch.310.0 to Ch.310.0  Ch.310.0 to Ch.510.0  Humpankatta Junction  Extension of Bibi Alabi Road	Cum	1 1 1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 240 240 240 410	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 4.54 5.84 1.34 2.36 2.17 2.81	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80 260.40 281.00
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.210.0 to Ch.340.0  Ch.210.0 to Ch.340.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0  Ch.350.0 to Ch.660.0  RHS  Ch.70.0 to Ch.310.0  Ch.310.0 to Ch.310.0  Ch.310.0 to Ch.510.0	Cum	1 1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 140 310 240 200	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 4.54 5.84 1.34 2.36	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80 260.40 281.00 1301.75
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I  Junction area at Hamilton Road  Ch.60.0 to 360.0  Junction at Rosario Road and Pandeshwar Road  Rosario church Road-Part II  Ch.780.0 to 900.0  Bunder Road  Ch.0.0 to Ch.1336.0  Light House Hill Road  Ch.0.0 to 100.0  Ch.100.0 to 210.0  Ch.100.0 to Ch.340.0  Ch.350.0 to Ch.480.0  KMC Merkera Road  LHS  Ch.180.0 to Ch.320.0  Ch.350.0 to Ch.660.0  RHS  Ch.70.0 to Ch.310.0  Ch.310.0 to Ch.310.0  Ch.310.0 to Ch.510.0  Humpankatta Junction  Extension of Bibi Alabi Road	Cum	1 1 1 1 1 1 1 1 1 1 1 1 1	24.25 68 770 300 903 120 1336 100 110 130 130 240 240 240 410	4.62 1.65 Area 9.975 Area 6.2 5.15 9.8 4.54 5.84 1.34 2.36 2.17 2.81	0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50	35.54 56.02 56.10 385.00 1496.25 451.50 372.00 3440.20 490.00 539.00 295.10 379.60 93.80 365.80 260.40 281.00

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
20	KSRRB M600-1.Providing and Constructing dry lean cement concrete M15 mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016, aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications.  Clause 601of MORTH V Revision and IS 456 Table-5 -do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor.						
	( KSRRB 18-19,Page No 174,SI No : 22.1.1)						
	Paver block on Carriageway						
	Rosario Church Road-LHS Ch.60.0 to Ch.145.0	Cum	1	84.54	2.46	0.1	20.80
	Ch.155.0 to Ch.260.0	Cum	1	107	3.87	0.1	41.41
	Ch.265.0 to Ch.300.0	Cum	1	34	2.73	0.1	9.28
	Ch.310.0 to Ch.330.0	Cum	1	24.18	1.685	0.1	4.07
	Ch.335.0 to Ch.350.0	Cum	1	14	1.45	0.1	2.03
	Ch.360.0 to Ch.390.0	Cum Cum	1	32.7 68.63	1.7 3.44	0.1	5.56
	Ch.400.0 to Ch.470.0  Rosario Church Road-Part II-LHS	Cum	1	00.03	3.44	0.1	23.61
	Ch.494.0 to Ch.520.0	Cum	1	23	1.98	0.1	4.55
	Gate Entrance at Ch.520.0	Cum	1	6.33	4.17	0.1	2.64
	Ch.525.0 to Ch.550.0	Cum	1	25.96	4.6	0.1	11.94
	Ch.523.0 to Ch. 550.0	Cum	1	4.23	26	0.1	11.00
	Gate Entrance at Ch.550	Cum Cum	1	7.54 2.77	3.73 12.52	0.1	2.81 3.47
	Ch.550.0 to Ch.565.0 Ch.570.0 to Ch.600.0	Cum	1	2.23	27	0.1	6.02
	Ch.600.0 to Ch.640.0	Cum	1	0.76	38	0.1	2.89
	Ch.640.0 to Ch.740.0	Cum	1	102	0.45	0.1	4.59
	Ch.750.0 to Ch. 890.0	Cum	1	158	1	0.1	15.80
	Rosario Church Road-Part II-RHS	_		0.40		0.4	
	Ch.500-Odd shape Ch.510.0 to Ch.570.0	Cum Cum	1	2.18 63	7.5 2.34	0.1	1.64 14.74
	Ch.570.0 to Ch.625.0	Cum	1	56.45	2.32	0.1	13.10
	Ch.625.0 to Ch.698.0	Cum	1	73.25	1.67	0.1	12.23
	Ch.700.0 to Ch.753.0	Cum	1	51.57	1.02	0.1	5.26
	Ch.753.0 to Ch.880.0	Cum	1	127	0.94	0.1	11.94
	Bunder Road-LHS	Cum	4	110	2.54	0.1	20.00
	Ch.0.0 to Ch. 125.0 Ch.125.1 to Ch. 160.0	Cum Cum	1	119 33	2.54 2.31	0.1	30.23 7.62
	Ch.160.1 to 172.0( including LHS footpath	Cum	1	16	7.74	0.1	12.38
	Road at Ch.180.0 RHS Side Footpath	Cum	1	15.61	1.44	0.1	2.25
	Ch. 180.0 to Ch.210.0	Cum	1	27.69	0.94	0.1	2.60
	Ch.208.0 to Ch.223.0	Cum	1	17.27	2.3	0.1	3.97
	Ch.223.0 to Ch.245.0 Road at Ch.250.0 LHS Side Footpath	Cum Cum	1	28 10	1.51 1.4	0.1 0.1	4.23 1.40
	Road at Ch.250.0 LHS Side Footpath	Cum	1	10	7.2	0.1	7.20
	Ch.260.0 to Ch.280.0	Cum	1	22.69	2.82	0.1	6.40
	Ch.280.0 to Ch.300.0	Cum	1	21.1	2.8	0.1	5.91
	Ch.300.0 to Ch.340.0	Cum	1	37	5.39	0.1	19.94
	Ch.345.0 to Ch.382.0	Cum	1	38.65	7.09	0.1	27.40
	Ch.390.0 to Ch.440.0 Ch.440.1 to Ch. 650.0	Cum Cum	1	58.67 120	3.76 1.2	0.1 0.1	22.06 14.40
	Ch. 690.0 to Ch.880.0	Cum	1	183	0.5	0.1	9.15
	Ch.880.0 to Ch.1170.0	Cum	1	86	2.2	0.1	18.92
	Ch.1170.0 to Ch.1212.0	Cum	1	42.33	1.61	0.1	6.82
	Ch.1220.0 to 1280.0	Cum	1	65.59	3.54	0.1	23.22
	Ch.1280.0 to 1320.0	Cum Cum	1	34.24 7.54	1.11 3.11	0.1 0.1	3.80
	Ch.1320.0 to Ch.1330.0  Bunder Road-RHS	Cuili	'	7.54	3.11	0.1	2.34 0.00
	Ch.0.0 to Ch. 18.0	Cum	1	13.61	1.97	0.1	2.68
	Ch.18.0 to Ch.30.0	Cum	1	13.44	1.645	0.1	2.21
	Ch.30.0 to Ch.50.0	Cum	0.5	19.17	2.137	0.1	2.05
	Ch.50.0 to Ch.180.0	Cum	1	130 65	3.31 5.35	0.1	43.03
	Ch.180.0 to Ch.245.0 Ch.250.0 to Ch.555.0	Cum Cum	1	305	2.6	0.1	34.78 79.30
	Ch.550 to Ch.580	Cum	1	303	2.5	0.1	7.50
	Ch.710.0 to Ch.810	Cum	1	100	3	0.1	30.00
	Ch.820.0 to Ch.992.0	Cum	1	172	6.63	0.1	114.04
·	Ch.900.0 to Ch.1238.0	Cum	1	338	1.2	0.1	40.56
	Ch.1238.0 to Ch.1336.0	Cum	1	98	2.32	0.1	22.74
	DLC for Pavement Pandeshwar Road						
	RHS						
	Ch.150.0 to Ch.260.0	Cum	1	116	3.38	0.10	39.21
	LHS						

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Ch.150.0 to Ch.170.0	Cum	1	23	3.09	0.10	7.11
	Ch.180.0 to Ch.205.0	Cum	1	24.25	4.62	0.10	11.20
	Ch.210.0 to Ch.275.0	Cum	1	68	1.65	0.10	11.22
	Rosario church Road-Part I	_		770		2.42	77.00
	Junction area at Hamilton Road	Cum	1	770	Area	0.10	77.00
	Ch.60.0 to 360.0	Cum	1	300	9.975	0.10	299.25
	Junction at Rosario Road and Pandeshwar Road	Cum	1	903	Area	0.10	90.30
	Rosario church Road-Part II	_		400	0.0	0.40	71.10
	Ch.780.0 to 900.0	Cum	1	120	6.2	0.10	74.40
	Bunder Road	_		1000	5.45	0.40	000.04
	Ch.0.0 to Ch.1336.0	Cum	1	1336	5.15	0.10	688.04
	Light House Hill Road	_		400	0.0	0.40	20.00
	Ch.0.0 to 100.0	Cum	1	100	9.8	0.10	98.00
	Ch.100.0 to 210.0	Cum	1	110	9.8	0.10	107.80
	Ch.210.0 to Ch.340.0	Cum	1	130	4.54	0.10	59.02
	Ch.350.0 to Ch.480.0	Cum	1	130	5.84	0.10	75.92
	KMC Merkera Road						
	LHS						
	Ch.180.0 to Ch.320.0	Cum	1	140	1.34	0.10	18.76
	Ch.350.0 to Ch.660.0	Cum	1	310	2.36	0.10	73.16
	RHS						
	Ch.70.0 to Ch.310.0	Cum	1	240	2.17	0.10	52.08
	Ch.310.0 to Ch.510.0	Cum	1	200	2.81	0.10	56.20
	Extension of Bibi Alabi Road						
	Ch.0.0 to Ch.100.00	Cum	1	100	7	0.10	70.00
		Cum			Total Qty	<u>.                                      </u>	2751.17
21	KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per MORTH specifications Clause 601. (RA attached)						
	Pandeshwar Road RHS Footpath						
	Ch.0.0 to 40.00	Cum	1.00	40.00	2.21	0.10	8.83
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	2.46	0.10	0.19
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	3.35	0.10	0.26
	Ch.50.0 to 74.0	Cum	1.00	24.64	1.81	0.10	4.45
	Sloping Portion-Quarter Circle	Cum	1.00	4.22	1.00	0.10	0.42
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	3.03	0.10	0.24
	Ch.80.0 to 120.00	Cum	1.00	40.00	1.98	0.10	7.90
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	4.88	0.10	0.38
	Ch.130.0- Ch.260.0	Cum	1.00	130.00	1.62	0.10	21.06
	LHS Footpath						
	Ch.20.0 to Ch.65.0	Cum	1.00	45.00	1.80	0.10	8.10
	Ch.65.0 to Ch.130.0	Cum	1.00	65.00	2.88	0.10	18.75
	Ch.130.0 to Ch.200.0	Cum	1.00	70.00	2.01	0.10	14.07
	Rosario Church Road-I						
	RHS						
	Ch.70.0 to 284.0	Cum	1.00	214.00	2.40	0.10	51.36
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	6.40	0.10	0.50
	Ch.90 Triangular Portion	Cum	0.50	2.83	2.56	0.10	0.36
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	6.55	0.10	0.51
	Ch.300.0 to Ch.330.0	Cum	1.00	29.72	2.40	0.10	7.13
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	3.39	0.10	0.27
	Ch.337.0 to Ch.405.0	Cum	1.00	67.00	2.16	0.10	14.47
	Sloping Portion-Rectangular	Cum	1.00	3.00	2.60	0.10	0.78
	Ch.420.0 to Ch.490.0	Cum	1.00	75.00	2.40	0.10	18.00
	Sloping Portion-Quarter Circle	Cum	0.25	3.14	6.40	0.10	0.50
	LHS						
	Ch.60.0 to Ch.145.0	Cum	1.00	81.00	2.60	0.10	21.06
	Sloping Portion-Rectangular	Cum	1.00	2.70	2.50	0.10	0.68
	Sloping Portion-Rectangular	Cum	1.00	3.56	3.56	0.10	1.27
	Ch.55.0 to 65.0-Trapezoidal	Cum	1.00	10.00	4.28	0.10	4.28
	Ch.65.0 to Ch.260.0	Cum	1.00	92.00	2.50	0.10	23.00
	Sloping Portion-Rectangular	Cum	1.00	2.50	4.11	0.10	1.03
	Sloping Portion-Rectangular	Cum	1.00	2.50	4.00	0.10	1.00
	Ch.270.0 to Ch.300.00	Cum	1.00	28.20	2.50	0.10	7.05
	Ch.310.0 to Ch.330.0	Cum	1.00	19.57	2.50	0.10	4.89
	Ch.340.0 to Ch.350.0	Cum	1.00	9.70	2.50	0.10	2.43
	Ch.360.0 to Ch.390.0	Cum	1.00	28.42	2.50	0.10	7.11
	Ch.400.0 to Ch.465.0	Cum	1.00	65.50	2.50	0.10	16.38
	Light House Hill Road-LHS						
	Ch.0.0 to Ch.210.0	Cum	1.00	210.00	3.76	0.10	78.96
	Ch.210.0 to Ch.260.0	Cum	1.00	50.00	9.92	0.10	49.58

	Description	Unit	No's	L	В	н	Qty.
	Ch.240.0 to Ch.370.0	Cum	1.00	130.00	2.04	0.10	26.57
	Ch.350.0 to Ch.500.0	Cum	1.00	150.00	10.66	0.10	159.90
	Ch.500 to Ch.670.0	Cum	1.00	170.00	4.12	0.10	70.04
	Ch.650.0 to Ch.800.0	Cum	1.00	150.00	2.25	0.10	33.75
	Light House Hill Road-RHS						
	Ch.0.0 to Ch.105.0	Cum	1.00	105.00	2.82	0.10	29.61
	Ch.110.0 to Ch.170.0	Cum	1.00	60.00	4.37	0.10	26.22
	Ch.170.0 to Ch.255.0	Cum	1.00	85.00	4.38	0.10	37.23
	Ch.260.0 to Ch.770.0	Cum	1.00	510.00	3.10	0.10	158.10
	KMC Merkera Road-LHS						
	Ch,0.0 to Ch.670.0	Cum	1.00	670.00	3.15	0.10	211.05
	- y · · · · · ·						
	KMC Merkera Road-RHS						
	Ch.0.0 to Ch.90.0	Cum	1.00	90.00	3.22	0.10	28.98
	Ch.90.0 to Ch.155.0 Ch.160.0 to Ch.300.0	Cum Cum	1.00	65.00 140.00	3.48	0.10 0.10	22.62 51.80
	Ch. 160.0 to Ch.300.0 Ch.300.0 to Ch.470.0	Cum	1.00	170.00	3.70	0.10	57.46
	Ch.470.0 to Ch.700.0	Cum	1.00	230.00	3.77	0.10	86.71
	Footpath of Extension of Bibi alabi road				_		
	RHS						
	Ch.0.0 to Ch.100.0	Cum	1.00	100.00	2.41	0.10	24.10
	LHS	Cirro	1.00	70.00	0.54	0.40	0.00
	Ch.0.0 to Ch.70.0 Ch.75.00 to Ch.90.0	Cum Cum	1.00	70.00 15.00	2.54 2.80	0.10 0.10	17.78 4.20
	Compound Side Paver Block	Cuiii	1.00	13.00	2.00	0.10	4.20
	LHS						
	Ch.10.0 to Ch.33.0	Cum	1.00	23.00	2.30	0.10	5.29
	Ch.80.0 to Ch.90.0	Cum	1.00	10.00	5.30	0.10	5.30
						Total	1453.95
22	KSRRB M600-2. Providing and Constructing un-reinforced, dowel jointed, plain cement Pavement Quality concrete for pavements using Grade concrete M40 having Flexural strength not less than 4.50 Mpa over a prepared base with OPC, coarse aggregate at 0.64 cum, fine aggregates at 0.36 cum, Coarse and fine aggregate conforming to IS:383-2016 and Table 600-3 of MORTH V Revision, with Superplastizer at 3 Its conforming to IS 9103-2008. loading materials to batch mix plant by front end loader, mixed in a cement concrete batch mix plant as per approved mix design, transported to site in transit truck agitator 5 cum capacity, laid with Paver, compacted and finished in a continuous operation as per IRC-15 including cost for providing of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane of impermiable plastic sheet of 125 micron, groove cutting, sealant primer joint sealent, debonding strip, dowel bars at 9 kg/cum, tie rods at 1.15 kg/cum, admixtures as approved. Curing compound, finishing to lines and grades.						
	Pandeshwar Road						
	RHS Ch.150.0 to Ch.260.0	Cum	1	116	3.38	0.30	117.62
-	LHS	Juili	<u> </u>		3.00	0.00	111.02
	Ch.150.0 to Ch.170.0	Cum	1	23	3.09	0.30	21.32
	Ch.180.0 to Ch.205.0	Cum	1	24.25	4.62	0.30	33.61
	Ch.210.0 to Ch.275.0  Rosario church Road-Part I	Cum	1	68	1.65	0.30	33.66
	Junction area at Hamilton Road	Cum	1	770	Area	0.25	192.50
	Ch.60.0 to 360.0	Cum	1	300	9.975	0.25	748.13
	Junction at Rosario Road and Pandeshwar Road	Cum	1	903	Area	0.25	225.75
	Rosario church Road-Part II		<u> </u>	15-			
	Ch.780.0 to Ch.900.0	Cum	1	120	6.2	0.25	186.00
	<b>Bunder Road</b> Ch.0.0 to Ch.1336.0	Cum	1	1336	5.15	0.25	1720.10
-	Light House Hill Road	Juili	<u> </u>	1000	5.15	0.20	1120.10
	Ch.0.0 to 100.0	Cum	1	100	9.8	0.28	274.40
	Ch.100.0 to 210.0	Cum	1	110	9.8	0.28	301.84
	Ch.210.0 to Ch.340.0	Cum	1	130	4.54	0.28	165.26
	Ch.350.0 to Ch.480.0	Cum	1	130	5.84	0.28	212.58
	KMC Merkera Road LHS						
	Ch.180.0 to Ch.320.0	Cum	1	140	1.34	0.30	56.28
	Ch.350.0 to Ch.660.0	Cum	1	310	2.36	0.30	219.48
	RHS						
	Ch 70 0 to Ch 240 0	Cum	1	240	2.17	0.30	156.24
	Ch.70.0 to Ch.310.0	_					
	Ch.310.0 to Ch.510.0	Cum	1	200	2.81	0.30	168.60
	Ch.310.0 to Ch.510.0 Extension of Bibi Alabi Road						
	Ch.310.0 to Ch.510.0	Cum Cum	1	100	7	0.30 0.25 <b>Total</b>	168.60 175.00 <b>5008.36</b>

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
23	Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower and as shown on drawing and as per MORTH specifications clause 602.						
	(Non SOR Item)						
	Pandeshwar Road RHS						
	Ch.150.0 to Ch.260.0-Transverse	Rmt	26	3.38			87.88
	Ch.150.0 to Ch.260.0-Longitudinal	Rmt	1	116			116.00
	Ch.150.0 to Ch.170.0	Rmt	6	3.09			18.54
	Ch 100 0 to Ch 205 0	Rmt Rmt	1 6	23 4.62			23.00 27.72
	Ch.180.0 to Ch.205.0	Rmt	1	24.25			24.25
	Ch.210.0 to Ch.275.0	Rmt	16	1.65			26.40
	Rosario church Road-Part I	Rmt	1	68			68.00
	Junction area at Hamilton Road						
	Ch.60.0 to 360.0	Rmt	67	9.975			668.33
<b> </b>	Junction at Rosario Road and Pandeshwar Road	Rmt	3	300			900.00
	Rosario church Road-Part II						
<u> </u>	Ch.510.0 to 900.0	Rmt Rmt	27 1	6.2 120	1		167.40 120.00
	Bunder Road	IXIIII	'	120			120.00
	Ch.0.0 to Ch.1336.0	Rmt	297	5.15			1529.55
<del>                                     </del>	Light House Hill Road	Rmt	1	1336			1336.00
	Ch.0.0 to 100.0	Rmt	23	9.8			225.40
	Ch.100.0 to 210.0 Ch.210.0 to Ch.340.0	Rmt Rmt	25 29	9.8 4.54			245.00 131.66
	Ch.350.0 to Ch.480.0	Rmt	29	5.84			169.36
		Rmt	1	470			470.00
	KMC Merkera Road LHS						
	Ch.180.0 to Ch.320.0	Rmt	32	1.34			42.88
	Ch.350.0 to Ch.660.0	Rmt	69	2.36			162.84
	RHS	Rmt	1	450			450.00
	Ch.70.0 to Ch.310.0	Rmt	54	2.17			117.18
	Ch.310.0 to Ch.510.0 Longitudinal Joint	Rmt Rmt	45 1	2.81 440			126.45 440.00
	Extension of Bibi Alabi Road	IXIIII	'	440			440.00
	Ch.0.0 to Ch.100.00	Rmt	22	7			154.00
	Longitudinal Joint Light House Hill Road	Rmt Rmt	1	100			100.00
	Ch. 0.0 to Ch.210.0	Rmt	36.8	6.35			233.68
		Rmt			Total Qty	'.	8181.52
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8) Consider Same Qty of Joint Filling	Rmt			Total Qty		8181.52
-	Providing and laving at or near ground level factory made Median kerb				1		
25	Providing and laying at or hear ground level factory made Median Kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charge). (RA Attached)						
	KMC Merkera Road Island	Rmt	1	120			120.00
		Rmt			<b>T</b>	Sub Total	120.00
	Vol of one kerb stone=0.102cum,Total vol of kerb=	No's Cum			Total Qty	'. 	300 31
	·						<del>-</del> ·
26	Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC M20 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (RA Attached)						
	Footpath						
	Pandeshwar Road				1		

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	RHS Footpath Ch.0.0 to 40.00	Rm	1.00	40.00		1	40.00
	Sloping Portion-Quarter Circle	Rm	0.25	3.14	2.46		1.93
	Sloping Portion-Quarter Circle	Rm	0.25	3.14	3.35		2.63
	Ch.50.0 to 74.0	Rm	1.00	24.64			24.64
	Sloping Portion-Quarter Circle	Rm	1.00	4.22			4.22
	Sloping Portion-Quarter Circle	Rm	0.25	3.14	3.03		2.38
	Ch.80.0 to 120.00	Rm	1.00	40.00			40.00
	Sloping Portion-Quarter Circle	Rm	0.25	3.14	4.88		3.83
	Ch.130.0- Ch.260.0	Rm	1.00	130.00			130.00
	LHS Footpath Ch.20.0 to Ch.65.0	Rm	1.00	45.00			45.00
	Ch.65.0 to Ch.130.0	Rm	1.00	65.00			65.00
	Ch.130.0 to Ch.200.0	Rm	1.00	70.00			70.00
	Pandeshwar Road Median (New and Extended)	13111	1.00	70.00			70.00
	Ch.140.0 to Ch.185.0	Rm	2.00	45.00			90.00
	Ch.187.0 to Ch.190.0	Rm	2.00	3.00			6.00
	Rosario Church Road-I						
	RHS						
	Ch.70.0 to 284.0	Rm	1.00	214.00			214.00
	Sloping Portion-Quarter Circle	Rm	0.25	3.14			0.79
	Ch.90 Triangular Portion	Rm	0.50	2.83			1.42
	Sloping Portion-Quarter Circle Ch.300.0 to Ch.330.0	Rm Rm	0.25 1.00	3.14 29.72		+	0.79 29.72
	Sloping Portion-Quarter Circle	Rm	0.25	3.14			0.79
	Ch.337.0 to Ch.405.0	Rm	1.00	67.00		+	67.00
	Sloping Portion-Rectangular	Rm	1.00	3.00		1	3.00
	Ch.420.0 to Ch.490.0	Rm	1.00	75.00			75.00
	Sloping Portion-Quarter Circle	Rm	0.25	3.14			0.79
	LHS						
	Ch.60.0 to Ch.145.0	Rm	1.00	81.00			81.00
	Sloping Portion-Rectangular	Rm	1.00	2.70			2.70
	Sloping Portion-Rectangular	Rm	1.00	3.56			3.56
	Ch.55.0 to 65.0-Trapezoidal	Rm	1.00	10.00			10.00
	Ch.65.0 to Ch.260.0	Rm	1.00	92.00 2.50			92.00
	Sloping Portion-Rectangular Sloping Portion-Rectangular	Rm Rm	1.00	2.50			2.50 2.50
	Ch.270.0 to Ch.300.00	Rm	1.00	28.20			28.20
	Ch.310.0 to Ch.330.0	Rm	1.00	19.57			19.57
	Ch.340.0 to Ch.350.0	Rm	1.00	9.70			9.70
	Ch.360.0 to Ch.390.0	Rm	1.00	28.42			28.42
	Ch.400.0 to Ch.465.0	Rm	1.00	65.50			65.50
	Rosario Church Road-Part II-RHS						
	Ch.500-Odd shape	Rm	1.00	2.18			2.18
	Ch.510.0 to Ch.570.0	Rm	1.00	63.00			63.00
	Ch.570.0 to Ch.625.0	Rm	1.00	56.45			56.45
	Ch.625.0 to Ch.698.0	Rm Rm	1.00	73.25 51.57			73.25
	Ch.700.0 to Ch.753.0 Ch.753.0 to Ch.880.0	Rm	1.00	127.00			51.57 127.00
	Light House Hill Road-LHS	13111	1.00	127.00			127.00
	Ch.0.0 to Ch.210.0	Rm	1.00	210.00			210.00
	Ch.210.0 to Ch.260.0	Rm	1.00	50.00			50.00
	Ch.240.0 to Ch.370.0	Rm	1.00	130.00			130.00
	Ch.350.0 to Ch.500.0	Rm	1.00	150.00			150.00
	Ch.500 to Ch.670.0	Rm	1.00	170.00			170.00
	Ch.650.0 to Ch.800.0	Rm	1.00	150.00			150.00
	Limbs House Bill Book Bill						1
	Light House Hill Road-RHS	D	1.00	105.00		-	105.00
	Ch.0.0 to Ch.105.0 Ch.110.0 to Ch.170.0	Rm Rm	1.00	60.00			105.00 60.00
	Ch.170.0 to Ch.255.0	Rm	1.00	85.00		+	85.00
	Ch.260.0 to Ch.770.0	Rm	1.00	510.00			510.00
							3.0.00
	KMC Merkera Road-LHS						
	Ch,0.0 to Ch.670.0	Rm	1.00	670.00			670.00
	KMC Merkera Road-RHS			00.00			
	Ch.0.0 to Ch.90.0	Rm	1.00	90.00		-	90.00
	Ch.90.0 to Ch.155.0	Rm	1.00	65.00 140.00		-	65.00
	Ch.160.0 to Ch.300.0 Ch.300.0 to Ch.470.0	Rm Rm	1.00	170.00			140.00 170.00
	Ch.470.0 to Ch.700.0	Rm	1.00	230.00		+	230.00
	5 5.5 to 511.1 55.5	13111	1.00	_55.00			4623.01
	C= A+B/0.45m( length of one Kerb Stone)	Nos				Total(C)	10273.00
	Vol of 1 Kerb=0.028 cum, Total Vol.=	Cum					287.64
	Providin and fixing pre cast solid concrete water table(longitudinal gutter)						
27	as per the drawing,made out of CC M20 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete						
	(RA Attached ) Same Qty. As per Kerb Stone	Rm				+	4623
	Joanne Qiy. As per Nerb Storie	KIN		l .		1	4023

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	C= A+B/0.45m( length of one Kerb Stone)	Nos.					10273
	Vol of 1 Kerb=0.028 cum, Total Vol.= 0.0118	Cum					121
	KSRRB 800-1. Painting two coats after filling the surface with synthetic						
	enamel paint in approved shades on new plastered concrete surfaces, with						
28	materials, labour complete as per MORTH specifications section 8.						
	(KSRRB 18-19,Page No 180,SI No : 24.1)						
	Footpath						
	Pandeshwar Road						
	RHS Footpath Ch.0.0 to 40.00	Sqm	1.00	40.00		0.26	10.56
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	2.46	0.26	0.51
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	3.35	0.26	0.69
	Ch.50.0 to 74.0	Sqm	1.00	24.64		0.26	6.50
	Sloping Portion-Quarter Circle	Sqm	1.00	4.22		0.26	1.11
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	3.03	0.26	0.63
	Ch.80.0 to 120.00 Sloping Portion-Quarter Circle	Sqm	1.00 0.25	40.00 3.14	4.88	0.26 0.26	10.56
	Ch.130.0- Ch.260.0	Sqm Sqm	1.00	130.00	4.00	0.26	1.01 34.32
	LHS Footpath	Sqiii	1.00	130.00		0.20	34.32
	Ch.20.0 to Ch.65.0	Sqm	1.00	45.00		0.26	11.88
	Ch.65.0 to Ch.130.0	Sqm	1.00	65.00		0.26	17.16
	Ch.130.0 to Ch.200.0	Sqm	1.00	70.00		0.26	18.48
	Pandeshwar Road Median (New and Extended)				ļ		
	Ch.150.0 to Ch.185.0	Rm	2.00	45.00		0.26	23.76
	Ch.187.0 to Ch.190.0	Rm	2.00	3.00		0.26	1.58
	Rosario Church Road-I RHS				+		
	Ch.70.0 to 284.0	Sqm	1.00	214.00		0.26	56.50
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14		0.26	0.21
	Ch.90 Triangular Portion	Sqm	0.50	2.83		0.26	0.37
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14		0.26	0.21
	Ch.300.0 to Ch.330.0	Sqm	1.00	29.72		0.26	7.85
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14		0.26	0.21
	Ch.337.0 to Ch.405.0 Sloping Portion-Rectangular	Sqm Sqm	1.00	67.00 3.00		0.26 0.26	17.69 0.79
	Ch.420.0 to Ch.490.0	Sqm	1.00	75.00		0.26	19.80
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14		0.26	0.21
	LHS	- 1					-
	Ch.60.0 to Ch.145.0	Sqm	1.00	81.00		0.26	21.38
	Sloping Portion-Rectangular	Sqm	1.00	2.70		0.26	0.71
	Sloping Portion-Rectangular	Sqm	1.00	3.56		0.26	0.94
	Ch.55.0 to 65.0-Trapezoidal Ch.65.0 to Ch.260.0	Sqm	1.00	10.00 92.00		0.26 0.26	2.64 24.29
	Sloping Portion-Rectangular	Sqm Sqm	1.00	2.50		0.26	0.66
	Sloping Portion-Rectangular	Sqm	1.00	2.50		0.26	0.66
	Ch.270.0 to Ch.300.00	Sqm	1.00	28.20		0.26	7.44
	Ch.310.0 to Ch.330.0	Sqm	1.00	19.57		0.26	5.17
	Ch.340.0 to Ch.350.0	Sqm	1.00	9.70		0.26	2.56
	Ch.360.0 to Ch.390.0	Sqm	1.00	28.42		0.26	7.50
	Ch.400.0 to Ch.465.0	Sqm	1.00	65.50		0.26	17.29
	Light House Hill Road-LHS						
	Ch.0.0 to Ch.210.0	Sqm	1.00	210.00		0.26	55.44
	Ch.210.0 to Ch.260.0	Sqm	1.00	50.00		0.26	13.20
	Ch.240.0 to Ch.370.0	Sqm	1.00	130.00		0.26	34.32
	Ch.350.0 to Ch.500.0	Sqm	1.00	150.00		0.26	39.60
	Ch.500 to Ch.670.0	Sqm	1.00	170.00		0.26	44.88
	Ch.650.0 to Ch.800.0	Sqm	1.00	150.00		0.26	39.60
	Light House Hill Pood-PHS				<del>                                     </del>		
	Light House Hill Road-RHS Ch.0.0 to Ch.105.0	Sqm	1.00	105.00		0.26	27.72
	Ch.110.0 to Ch.170.0	Sqm	1.00	60.00		0.26	15.84
	Ch.170.0 to Ch.255.0	Sqm	1.00	85.00		0.26	22.44
	Ch.260.0 to Ch.770.0	Sqm	1.00	510.00		0.26	134.64
	KMC Merkera Road-LHS		4.00	070.00		2.22	470.00
	Ch,0.0 to Ch.670.0	Sqm	1.00	670.00		0.26	176.88
	KMC Merkera Road-RHS						
	Ch.0.0 to Ch.90.0	Sqm	1.00	90.00	+ +	0.26	23.76
	Ch.90.0 to Ch.155.0	Sqm	1.00	65.00		0.26	17.16
	Ch.160.0 to Ch.300.0	Sqm	1.00	140.00		0.26	36.96
	Ch.300.0 to Ch.470.0	Sqm	1.00	170.00		0.26	44.88
	Ch.470.0 to Ch.700.0	Sqm	1.00	230.00		0.26	60.72
		Sqm			Total Qty.		1121.88
	P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame						

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Pandeshwar Road	Nos.	2	19			38.00
	Rosario Church Road-1	Nos.	2	31			62.00
	Rosario Church Road-2	Nos.	2	26			52.00
	Bunder Road	Nos.	2	44			88.00
	Light House Hill Road	Nos.	2	33			66.00
	KMC Merkera Road	Nos.	2	53			106.00
		Nos.			Total Qty	<u>'.                                    </u>	412.00
30	Providing and Fixing Recessed Inception chamber cover - size: (600 x 450 )mm Material						
	SWD-Chamber Cover						
	Pandeshwar Road						
	Foundation-SWD	NI	F.4				54.00
	RHS-D1	Nos.	54				54.00
	LHS-D2	Nos.	54				54.00
	Rosario Church Road Foundation						
	RHS-D4	Nos.	84				84.00
	RHS-D5	Nos.	67				67.00
	RHS-D5B	Nos.	9				9.00
	RHS-D5A	Nos.	24				24.00
	LHS-D3	Nos.	84				84.00
	Bunder Road	. 100.			<b>†</b>		300
	Foundation				1		†
	RHS-D6	Nos.	161				161.00
	RHS-D7	Nos.	63		<b>†</b>		63.00
	RHS-D7A	Nos.	62		1		62.00
	Light House Hill Road-1	1100.	OL.				02.00
	Foundation				1		†
	RHS-D8	Nos.	78				78.00
	LHS-D9	Nos.	78				78.00
	LHS-D13	Nos.	77				77.00
	KMC Merkera Road						
	Foundation						
	RHS-D10A	Nos.	115				115.00
	RHS-D14	Nos.	30				30.00
	LHS-10	Nos.	115				115.00
		Nos.			Total Qty	1.	1155.00
31	Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, gratings with grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately complete as per specifications.(KSRB 18-19,SI.No.19.97,Pg.No.150)						
	Grating on SWD Channel						
	Rosario Church Road-II	NI.	0.7				07.00
	Rosario Church Road-II RHS-5	Nos.	67				67.00
	Rosario Church Road-II RHS-5 RHS-5B	Nos.	67 9				67.00 9.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road	Nos.	9				9.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6	Nos.	9				9.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7	Nos. Nos. Nos.	9 161 63				9.00 161.00 63.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A	Nos. Nos. Nos.	9 161 63 62				9.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7	Nos. Nos. Nos.	9 161 63		Total Qty		9.00 161.00 63.00 62.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24	Ka/No.			9.00 161.00 63.00 62.00 24.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos.	<b>Kg/No.</b> 120	Kg		9.00 161.00 63.00 62.00 24.00 386.00 Quintal
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24	<b>Kg/No.</b> 120			9.00 161.00 63.00 62.00 24.00 386.00
	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos.		Kg		9.00 161.00 63.00 62.00 24.00 386.00 Quintal
32	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos.		Kg		9.00 161.00 63.00 62.00 24.00 386.00 Quintal
32	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A RHS-D5A  KSRB 12-8.2 : Constructing brick masonry inspection chamber 500x700mm, and 450mm depth, (clear inside dimension) for pipeline with one or two inlets, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finished smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS (P.No. 76/ I.No.11.52 of PWD SR 2018-19)	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos.		Kg		9.00 161.00 63.00 62.00 24.00 386.00 Quintal
32	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A RHS-D5A  KSRB 12-8.2 : Constructing brick masonry inspection chamber 500x700mm, and 450mm depth, (clear inside dimension) for pipeline with one or two inlets, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal , foundation concrete M 5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finished smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos.		Kg		9.00 161.00 63.00 62.00 24.00 386.00 Quintal
32	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A RHS-D5A  KSRB 12-8.2 : Constructing brick masonry inspection chamber 500x700mm, and 450mm depth, (clear inside dimension) for pipeline with one or two inlets, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal , foundation concrete M 5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finished smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS (P.No. 76/ I.No.11.52 of PWD SR 2018-19)  Water Pipe and OFC Pipe Pandeshwar Road Rosario Church Road-1	Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos. 386.00		Kg		9.00 161.00 63.00 62.00 24.00 386.00 Quintal 463.2
32	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A RHS-D5A  KSRB 12-8.2 : Constructing brick masonry inspection chamber 500x700mm, and 450mm depth, (clear inside dimension) for pipeline with one or two inlets, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal , foundation concrete M 5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finished smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS (P.No. 76/ I.No.11.52 of PWD SR 2018-19)  Water Pipe and OFC Pipe Pandeshwar Road Rosario Church Road-1 Rosario Church Road-2	Nos. Nos. Nos. Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos. 386.00		Kg	, , , , , , , , , , , , , , , , , , ,	9.00 161.00 63.00 62.00 24.00 386.00 Quintal 463.2 38.00 62.00 53.00
32	Rosario Church Road-II RHS-5 RHS-5B Bunder Road RHS-D6 RHS-D7 RHS-D7A RHS-D5A  KSRB 12-8.2 : Constructing brick masonry inspection chamber 500x700mm, and 450mm depth, (clear inside dimension) for pipeline with one or two inlets, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal , foundation concrete M 5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finished smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS (P.No. 76/ I.No.11.52 of PWD SR 2018-19)  Water Pipe and OFC Pipe Pandeshwar Road Rosario Church Road-1	Nos. Nos. Nos. Nos. Nos. Nos. Nos.	9 161 63 62 24 Nos. 386.00		Kg	· · · · · · · · · · · · · · · · · · ·	9.00 161.00 63.00 62.00 24.00 386.00 Quintal 463.2

	Description	Unit	No's	L	В	н	Qty.
	KMC Merkera Road	Nos.	107		_		107.00
		Nos.					415.00
33	Providing gully pipe lowering, laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)						
	SWD						
	Pandeshwar Road						
	Foundation-SWD						
	RHS-D1	Rmt	54	1			54.00
	LHS-D2	Rmt	54	1			54.00
	Rosario Church Road						
	Foundation Pug Pug	Dest	0.4				04.00
	RHS-D4 RHS-D5	Rmt Rmt	84 67	<u>1</u>			84.00
	RHS-D5B	Rmt	9	1			67.00 9.00
	RHS-D5A	Rmt	24	1			24.00
	LHS-D3	Rmt	84	1			84.00
	Bunder Road		<u> </u>	'			0 1.50
	Foundation						
	RHS-D6	Rmt	161	1			161.00
	RHS-D7	Rmt	63	1			63.00
	RHS-D7A	Rmt	62	1			62.00
	Light House Hill Road-1						
	Foundation						
	RHS-D8	Rmt	78	1			78.00
	LHS-D9 LHS-D13	Rmt	78 77	1			78.00
	KMC Merkera Road	Rmt	11	1			77.00
	Foundation						
	RHS-D10A	Rmt	115	1			115.00
	RHS-D14	Rmt	30	1			30.00
	LHS-10	Rmt	115	1			115.00
		Rmt			Total Qty	<i>i</i> .	1155.00
34	KSRB 11-18-17.1 : 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 SR 2018-19,P.No.88, SI.No.12.89)						
	SWD						
	Pandeshwar Road						
	Foundation-SWD						
	RHS-D1	Nos.	54				54.00
	LHS-D2	Nos.	54				54.00
	Rosario Church Road						
	Foundation RHS-D4	Nos.	84				84.00
	RHS-D5	Nos.	67				67.00
	RHS-D5B	Nos.	9				9.00
	RHS-D5A	Nos.	24				24.00
	LHS-D3	Nos.	84				84.00
	Bunder Road						
	Foundation						
	RHS-D6	Nos.	161				161.00
	RHS-D7	Nos.	63				63.00
	RHS-D7A	Nos.	62				62.00
							_
	Light House Hill Road-1						1
	Foundation	Nos	78				78.00
		Nos.	78 78				78.00 78.00
	Foundation RHS-D8						
	Foundation RHS-D8 LHS-D9	Nos.	78				78.00
	Foundation RHS-D8 LHS-D9 LHS-D13	Nos.	78				78.00
	Foundation RHS-D8 LHS-D9 LHS-D13 KMC Merkera Road Foundation RHS-D10A	Nos. Nos.	78 77 115				78.00 77.00
	Foundation RHS-D8 LHS-D9 LHS-D13 KMC Merkera Road Foundation RHS-D10A RHS-D14	Nos. Nos. Nos.	78 77 115 30				78.00 77.00 115.00 30.00
	Foundation RHS-D8 LHS-D9 LHS-D13 KMC Merkera Road Foundation RHS-D10A	Nos. Nos. Nos. Nos.	78 77 115				78.00 77.00 115.00 30.00 115.00
	Foundation RHS-D8 LHS-D9 LHS-D13 KMC Merkera Road Foundation RHS-D10A RHS-D14	Nos. Nos. Nos.	78 77 115 30		Total Qty		78.00 77.00 115.00 30.00

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
35	KSRRB M800-29.3.Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia						
	of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case-III: Triple row for three utility services.  (KSRRB 2018-19.Pg No 186.SI.No.24.36)						
	Pandeshwar Road	Rmt	3				57
	Rosario Church Road-1	Rmt	4				76
	Rosario Church Road-2 Bunder Road	Rmt Rmt	13	19 15			76 195
	Light House Hill Road	Rmt	8				136
	KMC Merkera Road	Rmt	8	19			152
	Extension of Bibi alabi Road	Rmt	3	7			21
		Rmt			Total Qty	1.	713.00
36	Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)			nua .			
	Pandeshwar Road	Rmt	Nos.	RHS 267	Nos.	<b>LHS</b> 304	2284
	Rosario Church Road-1	Rmt	5			447	3324
	Rosario Church Road-2	Rmt	4		0	397	1588
	Bunder Road	Rmt	0 4		4	1329	5316
	Light House Hill Road KMC Merkera Road	Rmt Rmt	4		4	250 800	3968 6400
	Extension of Bibi alabi Road	Rmt	0		4	100	400
	Deduction of Chambers length		No. Of Pipes	No. Of Chamber s	No. Of Pipes	No. Of Chambers	
			А	В	С	D	E=(A*B+C*D) *2m chamber length
	Pandeshwar Road	Rmt Rmt	5		2	11 15	-160 -230
	Rosario Church Road-1 Rosario Church Road-2	Rmt	4		0	14	-230
	Bunder Road	Rmt	0			45	-360
	Light House Hill Road	Rmt	4		4	9	-272
	KMC Merkera Road	Rmt	4		4	27	-432
	Extension of Bibi alabi Road	Rmt	0	0	4	4	-32
		Rmt			Total Qty	<i>l</i> .	21682.00
37	Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe		Nos.	RHS	Nos.	LHS	
	Pandeshwar Road	Rmt	5		5	304	2855
	Rosario Church Road-1	Rmt	4	486	4	447	3732
	Rosario Church Road-2	Rmt	4		4	397	3176
-	Bunder Road Light House Hill Road	Rmt Rmt	5		5	1329 250	5316 4960
	KMC Merkera Road	Rmt	5		5	800	8000
	Extension of Bibi alabi Road	Rmt	4	0	4	100	400
	Deduction of Chambers length		No. Of Pipes	No. Of Chamber s	No. Of Pipes	No. Of Chambers	
			A	В	С	D	E=(A*B+C*D) *2m chamber length
	Pandeshwar Road	Rmt	5			11	-200
<u> </u>	Rosario Church Road-1	Rmt	4		4	15 14	-256 -224
	Rosario Church Road-2 Bunder Road	Rmt Rmt	4			14 45	-224 -360
	Light House Hill Road	Rmt	5		5	9	-340
	KMC Merkera Road	Rmt	5	27	5	27	-540
	Extension of Bibi alabi Road	Rmt	4	0		_	-32
		Rmt	-		Total Qty	/. I	26487.00

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
38	Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw						
	material.			RHS	LHS		
	Pandeshwar Road	Rmt	1	267	304		571
	Rosario Church Road-1	Rmt	1	486	447		933
	Rosario Church Road-2	Rmt	1	397	0		397
	Bunder Road	Rmt	1	0	1329		1329
	Light House Hill Road	Rmt	1	742	250		992
	KMC Merkera Road	Rmt	1	800	800		1600
	Extension of Bibi alabi Road	Rmt	1	0	100		100
	No. of Spacer=Total Length of Pipe / 1.5m	Nos.			Total Qty	/.	5922.00 3948.00
	Providing and Fixing Spacers for Power Ducts of size 160 mm, to be						
39	placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.			RHS	LHS		
	Pandeshwar Road	Rmt	1	267	304		571
	Rosario Church Road-1	Rmt	1	486	447		933
	Rosario Church Road-2	Rmt	1	397	397		794
	Bunder Road	Rmt	1	0	1329		1329
	Light House Hill Road	Rmt	1	742	250		992
	KMC Merkera Road	Rmt	1	800	800		1600
	Extension of Bibi alabi Road	Rmt	1	0	100		100
	No. of Conseq. Total Laureth of Direct 4.5 cm	A*-			T-4		6319.00
	No. of Spacer=Total Length of Pipe / 1.5m	Nos.			Total Qty	/. 	4213.00
40	Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling, lowering into trenches, laying true to line and jointing of pipe etc. Complete.						
	(Market Rate)			RHS	LHS		
	Pandeshwar Road	Rmt	1	267	304		571
	Rosario Church Road-1	Rmt	1	486	447		933
	Rosario Church Road-2	Rmt	1	397	397		794
	Bunder Road	Rmt	1	0	1329		1329
	Light House Hill Road	Rmt	1	742	250		992
	KMC Merkera Road	Rmt	1	800	800		1600
	Extension of Bibi alabi Road	Rmt	1	0	100		100
	Deduction of Chambers length			No. Of			
	, and the second		No. Of Pipes	Chamber s	No. Of Pipes	No. Of Chambers	
			А	В	С	D	E=(A*B+C*D) *0.6m chamber length
	Pandeshwar Road	Rmt	1			304	
	Rosario Church Road-1	Rmt	1	17	1	447	-278.4
	Rosario Church Road-2	Rmt	1	14	1	397	-246.6
	Bunder Road	Rmt	1	0	1	1329	-797.4
	Light House Hill Road	Rmt	1	25	1	250	-165
	KMC Merkera Road	Rmt	1	27	1	800	-496.2
	Extension of Bibi alabi Road	Rmt	1	0	1	100	-60
							00
		Rmt			Total Qty	/ <u>.</u>	
41	Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No: 14.6)				Total Qty		
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)				Total Qty		
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No: 14.6)  Pandeshwar Road  RHS Footpath						4087.60
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00	Sqm	1	40	2.21		4087.60 88.32
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle	Sqm Sqm	0.25	3.14	2.21 2.46		88.32 1.93
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle	Sqm Sqm Sqm	0.25 0.25	3.14 3.14	2.21 2.46 3.35		88.32 1.93 2.63
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,Sl No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle Ch.50.0 to 74.0	Sqm Sqm Sqm Sqm	0.25 0.25 1	3.14 3.14 24.64	2.21 2.46 3.35 1.81		88.32 1.93 2.63 44.48
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,Sl No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle	Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1	3.14 3.14 24.64 4.22	2.21 2.46 3.35 1.81 1.00		88.32 1.93 2.63 44.48 4.22
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,Sl No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle Sloping Portion-Quarter Circle	Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25	3.14 3.14 24.64 4.22 3.14	2.21 2.46 3.35 1.81 1.00 3.03		88.32 1.93 2.63 44.48 4.22 2.38
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,Sl No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle	Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25	3.14 3.14 24.64 4.22 3.14 40.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98		88.32 1.93 2.63 44.48 4.22 2.38 79.00
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25 1 0.25	3.14 3.14 24.64 4.22 3.14 40.00 3.14	2.21 2.46 3.35 1.81 1.00 3.03 1.98 4.88		88.32 1.93 2.63 44.48 4.22 2.38 79.00 3.83
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle  Ch.130.0- Ch.260.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25	3.14 3.14 24.64 4.22 3.14 40.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98		88.32 1.93 2.63 44.48 4.22 2.38 79.00
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle  Ch.130.0- Ch.260.0  LHS Footpath	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25 1 0.25	3.14 3.14 24.64 4.22 3.14 40.00 3.14 130.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98 4.88 1.62		88.32 1.93 2.63 44.48 4.22 2.38 79.00 3.83 210.60
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle  Ch.130.0- Ch.260.0  LHS Footpath  Ch.20.0 to Ch.65.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25 1 0.25 1	3.14 3.14 24.64 4.22 3.14 40.00 3.14 130.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98 4.88 1.62		88.32 1.93 2.63 44.48 4.22 2.38 79.00 3.83 210.60
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle  Ch.130.0- Ch.260.0  LHS Footpath  Ch.20.0 to Ch.65.0  Ch.65.0 to Ch.130.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25 1 0.25 1 1 1	3.14 3.14 24.64 4.22 3.14 40.00 3.14 130.00 45.00 65.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98 4.88 1.62		88.32 1.93 2.63 44.48 4.22 2.38 79.00 3.83 210.60 81.00 187.50
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,Sl No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle  Ch.130.0- Ch.260.0  LHS Footpath  Ch.20.0 to Ch.65.0  Ch.65.0 to Ch.130.0  Ch.130.0 to Ch.200.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25 1 0.25 1	3.14 3.14 24.64 4.22 3.14 40.00 3.14 130.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98 4.88 1.62		88.32 1.93 2.63 44.48 4.22 2.38 79.00 3.83 210.60
41	and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (KSRB 18-19, Pg No 103,SI No : 14.6)  Pandeshwar Road  RHS Footpath  Ch.0.0 to 40.00  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.50.0 to 74.0  Sloping Portion-Quarter Circle  Sloping Portion-Quarter Circle  Ch.80.0 to 120.00  Sloping Portion-Quarter Circle  Ch.130.0- Ch.260.0  LHS Footpath  Ch.20.0 to Ch.65.0  Ch.65.0 to Ch.130.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	0.25 0.25 1 1 0.25 1 0.25 1 1 1	3.14 3.14 24.64 4.22 3.14 40.00 3.14 130.00 45.00 65.00	2.21 2.46 3.35 1.81 1.00 3.03 1.98 4.88 1.62		88.32 1.93 2.63 44.48 4.22 2.38 79.00 3.83 210.60 81.00 187.50

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
	Ch.70.0 to 284.0	Sqm	1	214.00	2.40		513.60
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	6.40		5.02
	Ch.90 Triangular Portion	Sqm	0.5	2.83	2.56		3.62
	Sloping Portion-Quarter Circle Ch.300.0 to Ch.330.0	Sqm Sqm	0.25	3.14 29.72	6.55 2.40		5.14 71.33
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	3.39		2.66
-	Ch.337.0 to Ch.405.0	Sqm	1	67.00	2.16		144.72
	Sloping Portion-Rectangular	Sqm	1	3.00	2.60		7.80
	Ch.420.0 to Ch.490.0	Sqm	1	75.00	2.40		180.00
	Sloping Portion-Quarter Circle	Sqm	0.25	3.14	6.40		5.02
	LHS						
	Ch.60.0 to Ch.145.0	Sqm	1	81.00	2.60		210.60
	Sloping Portion-Rectangular	Sqm	1	2.70	2.50		6.75
	Sloping Portion-Rectangular	Sqm	1	3.56 10.00	3.56 4.28		12.67 42.80
-	Ch.55.0 to 65.0-Trapezoidal Ch.65.0 to Ch.260.0	Sqm Sqm	1	92.00	2.50		230.00
-	Sloping Portion-Rectangular	Sqm	1	2.50	4.11		10.28
	Sloping Portion-Rectangular	Sqm	1	2.50	4.00		10.00
	Ch.270.0 to Ch.300.00	Sqm	1	28.20	2.50		70.50
	Ch.310.0 to Ch.330.0	Sqm	1	19.57	2.50		48.93
	Ch.340.0 to Ch.350.0	Sqm	1	9.70	2.50		24.25
	Ch.360.0 to Ch.390.0	Sqm	1	28.42	2.50		71.05
	Ch.400.0 to Ch.465.0	Sqm	1	65.50	2.50	-	163.75
	Rosario Church Road-Part II-RHS						
	Ch.500-Odd shape	Sqm	1	2.18	7.5		16.35
	Ch.510.0 to Ch.570.0	Sqm	1	63	2.34		147.42
	Ch.570.0 to Ch.625.0	Sqm	1	56.45	2.32		130.96
-	Ch.625.0 to Ch.698.0	Sqm	1	73.25	1.67		122.33
-	Ch.700.0 to Ch.753.0	Sqm	1	51.57	1.02		52.60
-	Ch.753.0 to Ch.880.0 Light House Hill Road-LHS	Sqm	1	127	0.94		119.38
	Ch.0.0 to Ch.210.0	Sqm	1	210	3.76		789.60
	Ch.210.0 to Ch.260.0	Sqm	1	50	9.9		495.81
	Ch.240.0 to Ch.370.0	Sqm	1	130	2.04		265.66
	Ch.350.0 to Ch.500.0	Sqm	1	150	10.66		1599.00
	Ch.500 to Ch.670.0	Sqm	1	170	4.12		700.40
	Ch.650.0 to Ch.800.0	Sqm	1	150	2.25		337.50
	Light House Hill Road-RHS						
	Ch.0.0 to Ch.105.0	Sqm	1	105	2.82		296.10
	Ch.110.0 to Ch.170.0	Sqm	1	60	4.37		262.20
	Ch.170.0 to Ch.255.0	Sqm	1	85	4.38		372.30
	Ch.260.0 to Ch.770.0	Sqm	1	510	3.1		1581.00
	I/MO Madage Day 11110						
-	KMC Merkera Road-LHS Ch,0.0 to Ch.670.0	Sqm	1	670	3.15		2110.50
-	CII,0.0 to CII.070.0	Sqiii	'	070	3.13		2110.50
	KMC Merkera Road-RHS						
	Ch.0.0 to Ch.90.0	Sqm	1	90	3.22		289.80
	Ch.90.0 to Ch.155.0	Sqm	1	65	3.48		226.20
	Ch.160.0 to Ch.300.0	Sqm	1	140	3.7		518.00
	Ch.300.0 to Ch.470.0	Sqm	1	170	3.38		574.60
	Ch.470.0 to Ch.700.0	Sqm	1	230	3.77		867.10
	Footpath of Extension of Bibi alabi road						
	RHS						
-	Ch.0.0 to Ch.100.0	Sqm	1	100	2.41		241.00
-	LHS	Carr	4	70	0.54		0.00
-	Ch.0.0 to Ch.70.0 Ch.75.00 to Ch.90.0	Sqm Sqm	1	70 15	2.54 2.8		177.80 42.00
	Compound Side Paver Block	Jqiii	1	ıυ	2.0		42.00
	LHS						
	Ch.10.0 to Ch.33.0	Sqm	1	23.00	2.3		52.90
	Ch.80.0 to Ch.90.0	Sqm	1	10.00	5.3		53.00
		Sqm			Total Qty		15128.55
	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x			-			
	300 mm) 40mm 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 30mm thick sand bed						
42	(average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in						
72	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.						
	(Non SOR Item)						
	,						
	Tactile Tiles @ Pandeshwar Road					-	
	RHS						<u> </u>
	Ch.0 to Ch.40.0	Sqm	1	40	0.3		12.00
ļ	at Ch.40.0	Sqm	1.00	0.90	0.30		0.27
<b> </b>	Ch.50.0 to Ch.75.	Sqm	1.00	25.00	0.30		7.50
-	End Tiles	Sqm	2.00	0.90	0.30		0.54
	Ch.82.0 to Ch.120.0	Sqm	1.00	38.00	0.30		11.40

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	End Tiles	Sqm	2.00	0.90	0.30		0.54
	Ch.130.0 to Ch.260.0	Sqm	1.00	115.00	0.30		34.50
	End Tiles	Sqm	1.00	0.90	0.30		0.27
	LHS Ch.20.0 to Ch.65.0	Sqm	1.00	45.00	0.30		13.50
	End Tiles	Sqm	1.00	0.90	0.30		0.27
	Ch.85.0 to Ch.150.0	Sqm	1.00	49.00	0.30		14.70
	Ch.145.0 to Ch.170.0	Sqm	1.00	25.00	0.30		7.50
	Ch.185.0 to Ch.195.0	Sqm	1.00	10.00	0.30		3.00
	End Tiles	Sqm	1.00	0.90	0.30		0.27
	Rosario Church Road	0		400.00	0.00		4.47.00
	Ch.20.0 to Ch.490.0 End Tiles	Sqm Sqm	7	490.00 0.60	0.30 0.30		147.00 1.26
	Light house hill road	Sqiii	1	0.60	0.30		1.20
	RHS						
	Ch.0.0 to Ch.800.0	Sqm	1	800.00	0.30		240.00
	LHS						
	Ch.0.0 to Ch.800.0	Sqm	1	800.00	0.30		240.00
	KMC Merkera Road						
	RHS						
	Ch.0.0 to Ch.700.0	Sqm	1	700.00	0.30		210.00
	LHS Ch.0.0 to Ch.700.0	Cam	1	700.00	0.30		210.00
	Extension of Bibi Alabi Road	Sqm	1	700.00	0.30		210.00
	RHS						
	Ch.0.0 to Ch.100.0	Sqm	1	100.00	0.30		30.00
	LHS	- Oq	· ·	100.00	0.00		00.00
	Ch.0.0 to Ch.100.0	Sqm	1	100.00	0.30		30.00
		Sqm			Total Qty		1214.52
	Providing and laying heavy duty cobble stones 75mm thick, using cement						
43	colour with a minimum compressive strength of 281 kg per sqm over 30mm 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. (KSRB 18-19,Page No 103,SI No : 14.7)						
	Paver block on Carriageway						
	Pandeshwar Road						
	RHS	Caura	4	405	4.00		474.00
	RHS Ch.130.0 to Ch.235.0	Sqm	1	105	1.66		174.30
	RHS Ch.130.0 to Ch.235.0 LHS						
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00	Sqm	1	45	1.81		81.45
	RHS Ch.130.0 to Ch.235.0 LHS	Sqm Sqm		45 55			
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0	Sqm	1 1	45	1.81		81.45 55.00
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0	Sqm Sqm Sqm	1 1 1	45 55 25.39	1.81 1 1.25		81.45 55.00 31.74
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0	Sqm Sqm Sqm Sqm	1 1 1 1	45 55 25.39 13.37	1.81 1 1.25 2.1		81.45 55.00 31.74 28.08
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0	Sqm Sqm Sqm Sqm	1 1 1 1	45 55 25.39 13.37	1.81 1 1.25 2.1		81.45 55.00 31.74 28.08
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0	Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107	1.81 1 1.25 2.1 1.56 2.46 3.87		81.45 55.00 31.74 28.08 7.21 207.97 414.09
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0	Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.310.0 to Ch.330.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74
	RHS Ch.130.0 to Ch.235.0  LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.310.0 to Ch.330.0 Ch.335.0 to Ch.350.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30
	RHS Ch.130.0 to Ch.235.0  LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0  Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.310.0 to Ch.330.0 Ch.335.0 to Ch.350.0 Ch.360.0 to Ch.390.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.335.0 to Ch.330.0 Ch.335.0 to Ch.350.0 Ch.360.0 to Ch.390.0 Ch.360.0 to Ch.390.0 Ch.360.0 to Ch.390.0 Ch.400.0 to Ch.470.0	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.330.0 to Ch.330.0 Ch.330.0 to Ch.350.0 Ch.360.0 to Ch.390.0 Ch.360.0 to Ch.470.0 Rosario Church Road-Part II-LHS	Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm Sqm	1 1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7 68.63	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45 1.7		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09 0.00
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	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.310.0 to Ch.330.0 Ch.330.0 to Ch.390.0 Ch.360.0 to Ch.470.0 Rosario Church Road-Part II-LHS Ch.494.0 to Ch.520.0 Gate Entrance at Ch.520.0 Ch.555.0 to Ch.550.0 Ch.550.0 to Ch.550.0 Ch.570.0 to Ch.600.0 Ch.600.0 to Ch.740.0 Ch.750.0 to Ch.890.0 Bunder Road-LHS Ch.0.1 to Ch. 125.0 Ch.125.1 to Ch. 160.0 Ch.160.1 to 172.0( including LHS footpath	Sqm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7 68.63 23 6.33 25.96 4.23 7.54 2.77 2.23 0.76 102 158 119 33 16 15.61	1.81 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45 1.7 3.44 1.98 4.17 4.6 26 3.73 12.52 27 38 0.45 1		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09 0.00 45.54 26.40 119.42 109.98 28.12 34.68 60.21 28.88 45.90 158.00 302.26 76.23 123.84 22.48
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	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.310.0 to Ch.330.0 Ch.335.0 to Ch.330.0 Ch.360.0 to Ch.470.0 Rosario Church Road-Part II-LHS Ch.400.0 to Ch.470.0 Rosario Church Road-Part II-LHS Ch.494.0 to Ch.520.0 Gate Entrance at Ch.550.0 Ch.525.0 to Ch.550.0 Ch.550.0 to Ch.550.0 Ch.550.0 to Ch.660.0 Ch.570.0 to Ch.660.0 Ch.670.0 to Ch.640.0 Ch.640.0 to Ch.740.0 Ch.640.0 to Ch.740.0 Ch.640.0 to Ch.540.0 Ch.650.0 to Ch.550.0 Ch.550.1 to Ch.550.0 Ch.550.1 to Ch.565.0 Ch.570.0 to Ch.640.0 Ch.640.0 to Ch.740.0 Ch.640.0 to Ch.740.0 Ch.750.0 to Ch. 890.0 Bunder Road-LHS Ch.0.0 to Ch. 125.0 Ch.125.1 to Ch. 160.0 Ch.160.1 to 172.0( including LHS footpath Road at Ch.180.0 RHS Side Footpath Ch. 180.0 to Ch.223.0	Sqm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7 68.63 23 6.33 25.96 4.23 7.54 2.77 2.23 0.76 102 158 119 33 16 15.61 27.69 17.27	1.81 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45 1.7 3.44 1.98 4.17 4.6 26 3.73 12.52 27 38 0.45 1 1 1 1 1 1 1 1 1 1 1 1 1		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09 0.00 45.54 26.40 119.42 109.98 28.12 34.68 60.21 28.88 45.90 158.00 302.26 76.23 123.84 22.48 26.03 39.72
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	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.300.0 Ch.35.0 to Ch.260.0 Ch.35.0 to Ch.300.0 Ch.310.0 to Ch.390.0 Ch.360.0 to Ch.390.0 Ch.400.0 to Ch.470.0 Rosario Church Road-Part II-LHS Ch.494.0 to Ch.520.0 Gate Entrance at Ch.520.0 Ch.525.0 to Ch.550.0 Ch.525.0 to Ch.550.0 Ch.520.0 to Ch.560.0 Ch.570.0 to Ch.565.0 Ch.570.0 to Ch.640.0 Ch.640.0 to Ch.740.0 Ch.750.0 to Ch.750.0 Ch.750.0 to Ch.750.0 Ch.570.0 to Ch.565.0 Ch.570.0 to Ch.565.0 Ch.570.0 to Ch.560.0 Ch.750.0 to Ch.740.0 Ch.750.0 to Ch.740.0 Ch.750.0 to Ch.740.0 Ch.750.0 to Ch.750.0 Ch.125.1 to Ch.160.0 Ch.125.1 to Ch.160.0 Ch.125.1 to Ch.160.0 Ch.180.0 to Ch.223.0 Ch.230.0 to Ch.223.0 Ch.223.0 to Ch.223.0 Ch.223.0 to Ch.245.0 Road at Ch.245.0 Road at Ch.245.0 Road at Ch.245.0 Road at Ch.250.0 LHS Side Footpath	Sqm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7 68.63 23 6.33 25.96 4.23 7.54 2.77 2.23 0.76 102 158 119 33 16 15.61 27.69 17.27 28 10	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45 1.7 3.44 1.98 4.17 4.6 26 3.73 12.52 27 38 0.45 1 1 2.54 2.31 7.74 1.44 0.94 2.3 1.51 1.4		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09 0.00 45.54 26.40 119.42 109.98 28.12 34.68 60.21 28.88 45.90 158.00 302.26 76.23 123.84 22.48 26.03 39.72 42.28 14.00
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.145.0 Ch.155.0 to Ch.260.0 Ch.265.0 to Ch.300.0 Ch.310.0 to Ch.330.0 Ch.335.0 to Ch.390.0 Ch.360.0 to Ch.470.0 Rosario Church Road-Part II-LHS Ch.404.0 to Ch.520.0 Gate Entrance at Ch.550.0 Ch.525.0 to Ch.550.0 Ch.550.0 to Ch.550.0 Ch.550.0 to Ch.560.0 Ch.570.0 to Ch.640.0 Ch.570.0 to Ch.640.0 Ch.640.0 to Ch.740.0 Ch.640.0 to Ch.550.0 Ch.550.0 to Ch.550.0 Ch.550.0 to Ch.550.0 Ch.550.0 to Ch.550.0 Ch.550.0 to Ch.565.0 Ch.570.0 to Ch.640.0 Ch.640.0 to Ch.740.0 Ch.640.0 to Ch.740.0 Ch.750.0 to Ch.890.0 Bunder Road-LHS Ch.0.1 to Ch. 160.0 Ch.125.1 to Ch. 160.0 Ch.180.0 to Ch.210.0 Ch.280.0 to Ch.245.0 Road at Ch.180.0 RHS Side Footpath Road at Ch.250.0 LHS Side Footpath Road at Ch.250.0 LHS Side Footpath	Sqm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7 68.63 23 6.33 25.96 4.23 7.54 2.77 2.23 0.76 102 158 119 33 16 15.61 27.69 17.27 28 10	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45 1.7 3.44 1.98 4.17 4.6 26 3.73 12.52 27 38 0.45 1 1 1 1 1 1 1 1 1 1 1 1 1		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09 0.00 45.54 26.40 119.42 109.98 28.12 34.68 60.21 28.88 45.90 158.00 302.26 76.23 123.84 22.48 26.03 39.72 42.28 14.00 72.00
	RHS Ch.130.0 to Ch.235.0 LHS Ch.20.0 to Ch.65.00 Ch.80.0 to Ch.135.0 Ch.145.0 to Ch.170.0 Ch.180.0 to Ch.195.0 Ch.200.0 to 270.0 Rosario Church Road-LHS Ch.60.0 to Ch.300.0 Ch.35.0 to Ch.260.0 Ch.35.0 to Ch.300.0 Ch.310.0 to Ch.390.0 Ch.360.0 to Ch.390.0 Ch.400.0 to Ch.470.0 Rosario Church Road-Part II-LHS Ch.494.0 to Ch.520.0 Gate Entrance at Ch.520.0 Ch.525.0 to Ch.550.0 Ch.525.0 to Ch.550.0 Ch.520.0 to Ch.560.0 Ch.570.0 to Ch.565.0 Ch.570.0 to Ch.640.0 Ch.640.0 to Ch.740.0 Ch.750.0 to Ch.750.0 Ch.750.0 to Ch.750.0 Ch.570.0 to Ch.565.0 Ch.570.0 to Ch.565.0 Ch.570.0 to Ch.560.0 Ch.750.0 to Ch.740.0 Ch.750.0 to Ch.740.0 Ch.750.0 to Ch.740.0 Ch.750.0 to Ch.750.0 Ch.125.1 to Ch.160.0 Ch.125.1 to Ch.160.0 Ch.125.1 to Ch.160.0 Ch.180.0 to Ch.223.0 Ch.230.0 to Ch.223.0 Ch.223.0 to Ch.223.0 Ch.223.0 to Ch.245.0 Road at Ch.245.0 Road at Ch.245.0 Road at Ch.245.0 Road at Ch.250.0 LHS Side Footpath	Sqm	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	45 55 25.39 13.37 4.62 84.54 107 34 24.18 14 32.7 68.63 23 6.33 25.96 4.23 7.54 2.77 2.23 0.76 102 158 119 33 16 15.61 27.69 17.27 28 10	1.81 1 1.25 2.1 1.56 2.46 3.87 2.73 1.685 1.45 1.7 3.44 1.98 4.17 4.6 26 3.73 12.52 27 38 0.45 1 1 2.54 2.31 7.74 1.44 0.94 2.3 1.51 1.4		81.45 55.00 31.74 28.08 7.21 207.97 414.09 92.82 40.74 20.30 55.59 236.09 0.00 45.54 26.40 119.42 109.98 28.12 34.68 60.21 28.88 45.90 158.00 302.26 76.23 123.84 22.48 26.03 39.72 42.28 14.00

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Ch.345.0 to Ch.382.0	Sqm	1	38.65	7.09		274.03
	Ch.390.0 to Ch.440.0	Sqm	1	58.67	3.76		220.60
	Ch.440.1 to Ch. 650.0	Sqm	1	120	1.2		144.00
	Ch. 690.0 to Ch.880.0	Sqm	1	183	0.5		91.50
	Ch.880.0 to Ch.1170.0	Sqm	1	86	2.2		189.20
	Ch.1170.0 to Ch.1212.0	Sqm	1	42.33	1.61		68.15
	Ch.1220.0 to 1280.0	Sqm	1	65.59	3.54		232.19
	Ch.1280.0 to 1320.0	Sqm	1	34.24	1.11		38.01
	Ch.1320.0 to Ch.1330.0  Bunder Road-RHS	Sqm	1	7.54	3.11		23.45
	Ch.0.0 to Ch. 18.0	Sqm	1	13.61	1.97		26.81
	Ch.18.0 to Ch.30.0	Sqm	1	13.44	1.645		22.11
	Ch.30.0 to Ch.50.0	Sqm	0.5	19.17	2.137		20.48
	Ch.50.0 to Ch.180.0	Sqm	1	130	3.31		430.30
	Ch.180.0 to Ch.245.0	Sqm	1	65	5.35		347.75
	Ch.250.0 to Ch.555.0	Sqm	1	305	2.6		793.00
	Ch.550 to Ch.580	Sqm	1	30	2.5		75.00
	Ch.710.0 to Ch.810	Sqm	1	100	3		300.00
	Ch.820.0 to Ch.992.0	Sqm	1	172	6.63		1140.36
	Ch.900.0 to Ch.1238.0	Sqm	1	338	1.2		405.60
	Ch.1238.0 to Ch.1336.0	Sqm	1	98	2.32		227.36
	KMC Merkera Road						
	Paver Block on Carriageway(Consider 30% of Qty.) Ch.40.0 to Ch.90.0 (Triangular Shape)	Çar-	0.5	16.16	2.60	0.3	18.63
		Sqm	0.5	46.16	2.69		
-	Ch.90.0 to Ch.320.0 Ch.320.0 to Ch.500.0	Sqm Sqm	1	230 180	3.3 2.87	0.3	227.70 154.98
	Ch.500.0 to Ch.610.0	Sqm	1	110	3.76	0.3	124.08
	Ch.610.0 to Ch.660.0	Sqm	1	50	1.51	0.3	22.65
	Table Top paver Block	Oqiii		- 00	1.01	0.0	22.00
	Pandeshwar Road	Sqm	2	6.2	3		37.20
	Rosario Church Road	Sqm	1	9.8	3		29.40
	Light House Hill Road	Sqm	1	9.3	3		27.90
	KMC Merkera Road	Sqm	3	11	3		99.00
		Sqm			Total Qty	<u>.</u>	8955.26
44	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (KSRRB 18-19,S.I.No.21.17.2,Page No.160)						
	Table Top paver Block						
	Pandeshwar Road	Cum	2	6.2	5	0.15	9.30
	Rosario Church Road	Cum	1	9.8	5	0.15	7.35
	Light House Hill Road	Cum	1	9.3	5	0.15	6.98
	KMC Merkera Road	Cum	3	11	5	0.15	24.75
		Cum			Total Qty		48.38
45	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying w ith a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4 % VG-40 Bitumen (KSRRB 18-19,S.I.No.21.22.6,Page No.162)						
	Table Top paver Block				<u> </u>		
	Pandeshwar Road	Cum	2	6.2	5	0.04	2.48
	Rosario Church Road	Cum	1	9.8	5	0.04	1.96
	Light House Hill Road	Cum	1	9.3	5	0.04	1.86
	KMC Merkera Road	Cum	3	11	5	0.04	6.60
		Cum			Total Qty		12.90
	Sinages						

Sr. No.	Description	Unit	No's	L	В	н	Qty.
46	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminium skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level, the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge.						
	10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  900MM Equilateral Triangle-TYPE XI (KSRRB 18-19,Page No 180,SI No: 24.2.1)						
	Pandeshwar Road	Nos.	13				13.00
	Rosario Church Road	Nos.	28				28.00
	Bunder Road	Nos.	31				31.00
	Light House Hill Road	Nos.	15				15.00
	KMC Merkera Road	Nos.	18				18.00
	Extension of Bibi Alabi Road	Nos.	4		Total Qty	,	4.00 <b>109.00</b>
		1103.			TOTAL QLY	-	109.00
48	signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level, the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge.						
	10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  900MM Octagon Stop Board-TYPE XI (KSRRB 18-19,Page No 180,SI No: 24.2.6)						
	Pandeshwar Road	Nos.	0				0.00
	Rosario Church Road	Nos.	0				0.00
	Bunder Road Light House Hill Road	Nos.	0				0.00
	KMC Merkera Road	Nos.	0				0.00
		Nos.	<u> </u>		Total Qty	'.	0.00
49	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge.						

in ly years warranty for Ratio Reflective Sheeting from the original betweening inansfactures as per clause 6 juli In Ric 2012 & a certified copy of three years outdoor orgosise report from an independent usel table for the product occorded control of the second of the second occorded of the supplier.  (OSRR 15-10 Page No 190,S1 No : 24 2.3)  Pandeshwart Road  Nos. 10 9 9 9,00  Roade Charles Road  Nos. 10 10 10,00  Roade Charles Road  Nos. 10 10,00  Roade Charles Road Charles Roade  Roade Charles Road Charles Roade  Roade Charles Roade Charles Roade  Roade Charles Roade	Sr. No.	Description	Unit	No's	L	В	Н	Qty.
Rosania Church Road		manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier. 600MM Circle-TYPE XI						
Rosania Church Road		Pandeshwar Road	Nos.	3				3.00
Bunder Road								
Light House Hill Road								
MICC Members Read  Nos.  Total Dty.  \$2.00  Nos.  Total Oty.  \$2.00  Nos.  Nos.  Total Oty.  \$2.00  Nos.  Nos.  Total Oty.  \$2.00  Nos.  Nos.  Total Oty.  \$2.00  Total Oty.  \$2.00  Total Oty.  \$2.00  Nos.  Nos.  Total Oty.  \$2.00  Total Oty.  Total Oty.  \$2.00  Total Oty.  \$2.00  Total Oty.  Total Oty.  \$2.00  Total Oty.  Tot								
KSRRB M800-2. Reno-Reflectorised Traffic Signs - Manufacturing, supply and installation of reto- reflectorised cautionary, mandatory and informatory sighthourist made out of cube corner micro prismate grade appointment of the products made out of cube corner micro prismate grade appointment on 30 thick aluminum sixn on both sides & fixed over a support frame of 25/25/36 mm MS angle and mounted on 75mm dia OR 75/75/56/mm Mild steel angle of total height 2.70m with death height of not less than 2.10m from the ground level to the both of the sign boat should be painted with one coat of control to the sign boat should be painted with one coat of control to the sign boat should be painted with one coat of control to the sign boat should be painted with one coat of control to the sign boat should be painted with one coat of control to the sign boat should be painted with one coat of control to the coat of control to the sign boat should be painted with one coat of control to the sign boat should be painted with one coat of control to the coat of								
KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, supply and installation of retro- reflectorised cautionary, mandatory and installation of retro- reflectorised subjects of Ret. (37-2012).  See Standard S		TOWO MERCIA ROAD				Total Oty	,	
and installation of retro- reflectorised cautionary, mandatory and informatory sippicands made out of cube corner micro prismatic gradie sheeting confirming to 600x800 MM type X standards of IRC :67-2012 specifications & these over 4 mm thick alturnium composition panel sheet having minimum 0.30 thick alturnium skin on both sides & fixed over a support fixmen of 25x25x3 mm MS single and mounted on 75xm mid of King of the control of the sign based & fixed over a support fixmen of 25x25x3 mm MS single and mounted on 75xm mid of King of the control of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixmen of the sign based & fixed over a support fixed fixed over a support fixed fixed over a support fixed fixed fixed over a support fixed fixed fixed fixed over a support fixed f			1403.			Total Qty	i .	32.00
conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by engineer in charge. 10 years warranty for retro reflective sheeting from the original sheeting manufacturer as per clause 6.9 in IRC 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  KSRRB 18-19 Po No. 182 SI No.24.2.4  Pandeshwar Road  Nos. 0  0.00  Bunder Road  Nos. 0  0.00  KMC Merkera Road  Nos. 0  0.00  KMC Merkera Road  Nos. 0  0.00  Nos. 0  0.00  Nos. 0  0.00  Total Qty. 3.00  Direction and Place Identification Signs upto 0.9 sgm Size Board: Providing and eracting direction and place identification retor-reflectorised sign as per IRC.67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sgm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing.  KSRRB 18-19,Pg No.180 SI No.24.3  Area  Pandeshwar Road  Sgm 5 0.9  4.50  Rosand Church Road  Sgm 5 0.9  4.50  KMC Merkera Road  KSRRB M800 Road markers / Road stud  KSRRB M800 Road markers / Road stud/SSRRB MS00-35. Supply and Installiation of Moulded Shank Raised Pavem	51	and installation of retro- reflectorised cautionary, mandatory and informatory signboards made out of cube corner micro prismatic grade sheeting confirming to 600x800 MM type XI standards of IRC :67:2012 specifications & fixed over 4 mm thick aluminium composite panel sheet having minimun 0.30 thick aluminium skin on both sides & fixed over a support frame of 25x25x3 mm MS angle and mounted on 75mm dia OR 75x75x6mm Mild steel angle of total height 2.70m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60 cm below ground level. The sign post should be painted with one coat of red oxide paint and white colour with brands of 30 cm height alternatively						
Rosario Church Road		conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the work as directed by engineer in charge. 10 years warranty for retro reflective sheeting from the original sheeting manufacturer as per clause 6.9 in IRC 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.  KSRRB 18-19.Pg No.182.Sl No.24.2.4						
Bunder Road			Nos.	0				0.00
Light House Hill Road		Rosario Church Road	Nos.	0				0.00
KMC Merkera Road  Nos. 0  Direction and Place Identification Signs upto 0.9 sqm Size Board: Providing and erecting direction and place identification retro-reflectorised sign as per IRC-67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing. KSRRB 18-19,Pg No.180 SI No.24.3  Pandeshwar Road  Pandeshwar Road  Sqm 5 0.9  4.50  Bunder Road  Sqm 5 0.9  4.50  Light House Hill Road  Sqm 5 0.9  4.50  Extension of Bibi Alabi Road stud KSRRB M800 Road markers / Road stud KSRRB M800 Road markers / Road stud KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installition of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS/Carylontific Butacliene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH-Circular No RW/NH/33023/40-97-DO.III.Dt.11.06.1997. The Pandeshwar Road  Nos 232  102 102  Extension of Bibi Alabi Road  Nos 232  102 202.00  Rosario Church Road  Nos 248  Light House Hill Road  Nos 248  248.00  Extension of Bibi Alabi Road		Bunder Road	Nos.	0				0.00
KMC Merkera Road		Light House Hill Road	Nos.	3				3.00
Direction and Place Identification Signs upto 0.9 sqm Size Board: Providing and erecting direction and place identification retro-reflectorised sign as per IRC-67 made of high intensity grade sheating vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing.  KSRRB 18-19,Pg No.180 SI No.24.3  Pandeshwar Road Sqm 5 0.9 4.50  Bunder Road Sqm 5 0.9 4.50  KMC Merkera Road Sqm 5 0.9 4.50  KMC Merkera Road Sqm 5 0.9 4.50  KMC Merkera Road Sqm 5 0.9 4.50  KSRB M800 Road markers / Road stud KSRRB M800 Road markers / Road stud KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installation of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS/(Acrylontific Butadienes Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH-Circular No RW/NH/33023/10-97- DO III Dt.11.06.1997 The Pandeshwar Road Ender Road Nos 232 Sqm 100  KMC Merkera Road Nos 238 Sqm 100 Sqm 1		KMC Merkera Road	Nos.	0				0.00
Direction and Place Identification Signs upto 0.9 sqm Size Board: Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing.  KSRRB 18-19.Pg No.180 SI No.24.3  Pandeshwar Road  Pandeshwar Road  Sqm 5 0.9  Area  Area  Pandeshwar Road  Sqm 5 0.9  4.50  Bunder Road  Sqm 5 0.9  4.50  Light House Hill Road  Sqm 5 0.9  4.50  Extension of Bibi Alabi Road  KSRRB M800 Road markers / Road stud KSRRB MS00-35. Supply and Installition of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97- DO III Dt 11 DR 1997. The Pandeshwar Road  Nos 162  Rosario Church Road  Nos 232  232.00  KMC Merkera Road  Nos 248  Extension of Bibi Alabi Road  Nos 48			Nos.			Total Qtv	<i>.</i>	
Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing.  KSRRB 18-19,Pg No.180 SI No.24.3  Pandeshwar Road  Pandeshwar Road  Pandeshwar Road  Sqm 5 0.9  4.50  Rosario Church Road  Sqm 5 0.9  4.50  Light House Hill Road  Sqm 5 0.9  Area  Ar								
Rosario Church Road		Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing.			Area			
Bunder Road Light House Hill Road Sqm 5 0.9 4.50 KMC Merkera Road Extension of Bibi Alabi Road Sqm 5 0.9 4.50 Sqm 5 0.9 4.50 Sqm 5 0.9 4.50 Sqm 5 0.9 4.50 Sqm 4 0.9 3.60 Sqm 7 Total Qty. 26.10  KSRRB M800 Road markers / Road stud KSRRB M800 Road markers   Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road Rosario Church Road Nos 232 Bunder Road Nos 190 Light House Hill Road Nos 258 KMC Merkera Road Nos 248 Extension of Bibi Alabi Road Nos 248 Extension of Bibi Alabi Road		Pandeshwar Road	Sqm	5	0.9			4.50
Bunder Road Light House Hill Road Sqm 5 0.9 4.50 KMC Merkera Road Extension of Bibi Alabi Road Sqm 5 0.9 4.50 Sqm 5 0.9 4.50 Sqm 5 0.9 4.50 Sqm 5 0.9 4.50 Sqm 4 0.9 3.60 Sqm 7 Total Qty. 26.10  KSRRB M800 Road markers / Road stud KSRRB M800 Road markers   Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road Rosario Church Road Nos 232 Bunder Road Nos 190 Light House Hill Road Nos 258 KMC Merkera Road Nos 248 Extension of Bibi Alabi Road Nos 248 Extension of Bibi Alabi Road			_					
Light House Hill Road  KMC Merkera Road  Extension of Bibi Alabi Road  Sqm 5 0.9  Extension of Bibi Alabi Road  Sqm 4 0.9  KSRRB M800 Road markers / Road stud  KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS/Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The  Pandeshwar Road  Rosario Church Road  Nos 232  Bunder Road  Nos 190  Light House Hill Road  Nos 258  Extension of Bibi Alabi Road  Nos 248  Extension of Bibi Alabi Road			_					
KMC Merkera Road Extension of Bibi Alabi Road Sqm 4 0.9  KSRRB M800 Road markers / Road stud KSRRB M800 Road markers   Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road Rosario Church Road Nos 232 Bunder Road Nos 190 Light House Hill Road Nos 258 KMC Merkera Road Nos 248 Extension of Bibi Alabi Road Nos 48			Sqm	5				4.50
Extension of Bibi Alabi Road  Sqm  Total Qty.  KSRRB M800 Road markers / Road stud KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installition of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road  Rosario Church Road  Bunder Road  Nos 232  Bunder Road  Nos 190  Light House Hill Road  KMC Merkera Road  Nos 248  Extension of Bibi Alabi Road  Nos 48		KMC Merkera Road	Sqm	5	0.9			4.50
KSRRB M800 Road markers / Road stud KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road Rosario Church Road Nos 232 Bunder Road Nos 190 Light House Hill Road Nos 258 KMC Merkera Road Nos 248 Extension of Bibi Alabi Road Nos 48		Extension of Bibi Alabi Road		4				
KSRRB M800 Road markers / Road stud KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road Rosario Church Road Nos 232 Bunder Road Nos 232 Bunder Road Nos 190 Light House Hill Road Nos 258 Extension of Bibi Alabi Road Nos 248 A8.00						Total Qtv	<i>.</i>	
KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997 The Pandeshwar Road Nos 232 162.00  Rosario Church Road Nos 232 232.00  Bunder Road Nos 190 190.00  Light House Hill Road Nos 258 258.00  KMC Merkera Road Nos 248 248.00  Extension of Bibi Alabi Road Nos 48								
Rosario Church Road         Nos         232         232.00           Bunder Road         Nos         190         190.00           Light House Hill Road         Nos         258         258.00           KMC Merkera Road         Nos         248         248.00           Extension of Bibi Alabi Road         Nos         48         48.00	52	KSRRB M800 Road markers I Road studKSRRB MS00-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97- DO III Dt 11 06 1997. The	Nos	162				162.00
Bunder Road         Nos         190         190.00           Light House Hill Road         Nos         258         258.00           KMC Merkera Road         Nos         248         248.00           Extension of Bibi Alabi Road         Nos         48         48.00								
Light House Hill Road         Nos         258         258.00           KMC Merkera Road         Nos         248         248.00           Extension of Bibi Alabi Road         Nos         48         48.00	<b>—</b>							
KMC Merkera Road         Nos         248         248.00           Extension of Bibi Alabi Road         Nos         48         48.00	<b> </b>							
Extension of Bibi Alabi Road Nos 48 48.00	<b> </b>							
	<b> </b>							
1000 1000 1000 1100.00						Total Oty	I	
								1,00.00

Sr. No.	Description	Unit	No's	L	В	н	Qty.
53	Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (KSRRB 18-19,Page No 182,SI No : 24.15)						
	Pandeshwar Road						
	Ch.0 to Ch.270.0						
	Continuos Line Dash Lines	Sqm	2	270 162	0.1		108.00
	Arrow	Sqm Sqm	32	0.76	Area/Rm		32.40 24.32
	Pedstrian Crossing	Sqm	5	14.2	1.4		99.40
	Table Top Crossing	Sqm	1	14.2	16.82		238.84
	Bassis Obsert Bass						
	Rosario Church Road Ch.40.0 to Ch.490.0						
	Continuos Line	Sqm	2	450	0.1		90.00
	Dash Lines	Sqm	2	270	0.1		54.00
	Arrow	Sqm	36	0.76	Area		27.36
	Pedstrian Crossing Table Top Crossing	Sqm Sqm	5 1	9.79 9.79	1.4 16.82	Area/Rm Area/Rm	68.53 164.67
	Table Top Clossing	Sqiii	'	9.79	10.02	Alea/Kill	104.07
	Rosario Church Road-1						
	Ch.40.0 to Ch.490.0						
	Continuos Line Dash Lines	Sqm Sqm	2	450 270	0.1		90.00 54.00
	Arrow	Sqm	36	0.76	Area		27.36
	Pedstrian Crossing	Sqm	6	9.79	1.4	Area/Rm	82.24
	Table Top Crossing	Sqm	1	9.79	16.82	Area/Rm	164.67
	Rosario Church Road-2 Ch.490.0 to Ch.900.0						
	Continuos Line	Sqm	2	410	0.1		82.00
	Dash Lines	Sqm	0	246	0.1		0.00
	Arrow	Sqm	40	0.76	Area	. /5	30.40
	Pedstrian Crossing Table Top Crossing	Sqm Sqm	7	6	1.4 16.82	Area/Rm Area/Rm	58.80 0.00
	Table Top Glossing	Sqiii	- 0	0	10.02	Alea/Kill	0.00
	Bunder Road						
	Ch.0.0 to Ch.1336.0						
	Continuos Line Dash Lines	Sqm Sqm	0	1336 801.6	0.1		267.20 0.00
	Arrow	Sqm	40	0.76	Area		30.40
	Pedstrian Crossing	Sqm	7	6	1.4	Area/Rm	58.80
	Table Top Crossing	Sqm	0	6	16.82	Area/Rm	0.00
					1		
	Light House Hill Road				+		
	Ch.0.0 to Ch.800.0						
-	Continuos Line	Sqm	2	800	0.1		160.00
	Dash Lines	Sqm	2	480	0.1		96.00
	Arrow Pedstrian Crossing	Sqm Sqm	90 4	0.76 9.3	Area 1.4	Area/Rm	68.40 52.08
	Table Top Crossing	Sqm	1	9.3	16.82	Area/Rm	156.43
	KMC Merkera				1		
	Ch.0.0 to Ch.800.0 Continuos Line	Sqm	2	800	0.1		160.00
	Dash Lines	Sqm	2	480	0.1		96.00
	Arrow	Sqm	90	0.76	Area		68.40
	Pedstrian Crossing	Sqm	4	9.6	1.4	Area/Rm	53.76
	Table Top Crossing	Sqm	3	9.6	16.82	Area/Rm	484.42
	KMC Merkera				1		
	Ch.0.0 to Ch.100.0						
	Continuos Line	Sqm	2	100	0.1		20.00
	Dash Lines	Sqm	2	60	0.1		12.00
	Arrow Pedstrian Crossing	Sqm Sqm	4	0.76 9.6	Area 1.4	Area/Rm	3.04 53.76
	r vasinan orosang	Sqm	7	9.0	Total Qty		3337.67

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
54	Providing and Fixing of Bus shelter(on prepared foundation) made of SS 304 frame work with brush steel finish, Galvanised Aluminium powder coated roofing and electronic circuit to control its lighting. The seating shall be made of SS 304 tubular sections for seat and back rest. each unit size of 4500mm x 600mm with a minimum backrest support of 450mm. Bus shelter shall have the Side Display board to have 1100X400mm Electronic display. The electronic display board to be of LED Scrolling type with Oval, 4.3 x 5.1mm dia. Diffused. LED's having Amber colour. Dual bin system should be adopted one for recycle waste & other for dry waste. Each bin shall be with minimum capacity of 70Ltrs. Interactive Information Panel-display equipment with information area of 1400 x 1400 and touch screen LED display panel of area not less than 600-900mm with integrated mand 2100mm x 2000mm shall be integrated within the design of the Bus Shelter. This shall be backlit type with SS box framing sides and back complete. Provision for installing outdoor WiFi Router. The Foundation slab shall be made in min M25 concrete. The cast iron nuts, bolts shall be rust proof hot deep galvanized powder coated etc. The materials used shall be Nonflammable (NON SOR Item)	Nos.	2				2.00
55	Providing & installing of E- toilet with Super structure of the electronic toilet to have asthetic ambience with inner room size 1.2 x 0.8 x 2.4 (LXWXH)meters and Size of electronic toilet overall size in meters 2.30x1.25x2.80 (LXWXH) Total area 35 Sft. with Built-acess controlled main door and side walls made of SS Grade 304,Toilet floor and closet are to be stainless steel of grade 304.E-Toilet shall have Built-in water tank with minimum 225 Lit capacity and Acess controll using coin validator for entering the unit based on automatic payment collection mechanism exit from the unit should be manual.Automatic lights inside the unit with gloves on opening the door.E-Toilet shall be Automatic flushing system which includes Automatic Pre flush cleaning before use,Automatic closet washing mechanism after use and Automatic platform cleaning mechanism programmed after specific numbers.In addition to these flush switch is to be provided for manual operation.Standard features should include heath faucet,exhaust fan and cloth hanger.	Nos.	2				2.00
	The E-Toilet shall have Alert to users-different indication on 'ready to use', busy are to be provided in the unit also with Voice guidence in the unit for users. Web enabled support-GPRS based Real time data to be provided from the unit through web for knowing the health status like number of users per day and coins collected. E-toilet shall have Modular and portable design enabling easy assembling and installation at site. Call ceneter and web portal facilities for registering complience and tracking usage, coin collection etc. Status display in LED, Printed instruction stickers are to be provided. For Advertisment purpose space for advertisement dispaly to be povided on the exterior of the unit for income generation and sustainability. Backup power facility like UPS is to be provided to supplement upto 30 Min Base of the unit to be placed on a suitable concrete structure with a ashthetic finish. (Non SOR Item)						
56	KSRB 6-2.3: Providing and constructing burnt brick masonry with approved quality of non-modular bricks of standard size of class designation 5.0Newton per sqmm (table moulded) with cement mortar 1:6 for basement and superstructu/re including cost of materials, labour charges, scaffolding, curing complete as per specifications. Specification No. KBS 6.2. (KSRB 18-19,Page No.29,SI.No.6.7)						
	Pandeshwar Road						
	Long Wall	Cum	8.00	3.00	0.23	0.65	3.59
	Short Wall Rosario Church Road	Cum	8.00	0.60	0.23	0.65	0.72
	Long Wall	Cum	8.00	3.00	0.23	0.65	3.59
	Short Wall  Bunder Road	Cum	8.00	0.60	0.23	0.65	0.72
	Long Wall	Cum	8.00	3.00	0.23	0.65	3.59
	Short Wall	Cum	8.00	0.60	0.23	0.65	0.72
	Light House Hill Road Long Wall	Cum	16.00	3.00	0.23	0.65	7.18
	Short Wall	Cum	16.00	0.60	0.23	0.65	1.44
	KMC Merkera Road	Curr	16.00	2.00	0.22	0.65	7.40
	Long Wall Short Wall	Cum Cum	16.00 16.00	3.00 0.60	0.23	0.65 0.65	7.18 1.44
1		Cum			Total Qt		30.14

Sr. No.	Description	Unit	No's	L	В	Н	Qty.
57	KSRB15-3.8: Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering,: Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.(KSRRB 18-19,Page No.116,SI No.15.16)						
	Pandeshwar Road Long Wall	Sqm	8.00	3.00		0.45	10.80
	Short Wall	Sqm	8.00	0.60		0.45	2.16
	Rosario Church Road	C ====	0.00	2.00		0.45	40.00
	Long Wall Short Wall	Sqm Sqm	8.00 8.00	3.00 0.60		0.45 0.45	10.80 2.16
	Bunder Road						
	Long Wall	Sqm	8.00	3.00		0.45	10.80
	Short Wall Light House Hill Road	Sqm	8.00	0.60		0.45	2.16
	Long Wall	Sqm	16.00	3.00		0.45	21.60
	Short Wall	Sqm	16.00	0.60		0.45	4.32
	KMC Merkera Road Long Wall	Sqm	16.00	3.00		0.45	21.60
	Short Wall	Sqm	16.00	0.60		0.45	4.32
		Sqm			Total Qty		90.72
58	Providing and fixing 450mm wide X 600mmX 20mm thk.RIVERWASHED BLACK GRANITE CLADDING on surface of seating as directed by architect (Non SOR Item)  Pandeshwar Road						
	Bench	Sqm	4.00	3.00		0.60	7.20
	Rosario Church Road Bench	Sqm	4.00	3.00		0.60	7.20
	Bunder Road	Oqiii	4.00	0.00		0.00	1.20
	Bench	Sqm	4.00	3.00		0.60	7.20
	Light House Hill Road Bench	Sqm	8.00	3.00		0.60	14.40
	KMC Merkera Road	Sqiii	0.00	3.00		0.00	14.40
	Bench	Sqm	8.00	3.00		0.60	14.40
		Sqm			Total Qty	١.	50.40
59	Supply and Fixing of Traffic signal Straight pole of 6 mtr, inner dia 100 mm from resistant to peeling with base plate size of (LXWXT) 200mm X200mmX6mm painted with redoxide and double coat with synthetic enamel paint of yellow colour assembly G.I., class B, as per technical specification	Nos.	2				2.00
60	Supply and fixing of Traffic signal Cantilever pole Class B having inner diameter of 100 mm or more with a height of 6m including extension arm assembly having outer diameter of 75mm with arm span of 4 mtr length and base plate of size 300mm X 300mm with thickness of 6 mm welded at the bottom of the pole base as per technical specification & drawings. (NON SOR Item)		2				2.00
61	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (blow) as per Specification (NON SOR Item)	Nos.	4				4.00
62	Supply and fixing of 300 mm dia – single source – LED retrofit - Amber (blow) as per Specification (NON SOR Item)	Nos.	4				4.00
63	Supply and fixing of 300 mm dia – single source – LED retrofit - Green (arrow/U- Turn) EN-12368 as per Specification (NON SOR Item)	Nos.	4				4.00
64	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (ped. standing) EN-12368 as per Specification (NON SOR Item)	Nos.	4				4.00
65	Supply and fixing of 300 mm dia – single source – LED retrofit - Green (ped.walking) EN-12368 as per Specification (NON SOR Item)	Nos.	4				4.00
66	Supply and fixing of 300 mm dia - No Right Turn/No Left turn/No Straight/No 'U' Turn aspects by using UV stabilized ink on face plate EN-12368 as per Specification (NON SOR Item)	Nos.	4				4.00
67	Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	302				302.00
68	Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)						
	Handrail Road						
	RHS	Rm	1	100			100.00
	LHS	Rm	1	100			100.00
-		Rm			1	A=	200.00
L					<u> </u>		

Sr. No.	Description	Unit	No's	L	В	н	Qty.
	Hand Rail of length2.4 meter Steel Qty.					Wt/Rm	
	Horizontal Member-M.S.Box 25x25x3.2mm thk.	KG		3	2.4	4.536	32.66
	Vertical Member-M.S. Box 50x25x3.2mm thk.	KG		1	1.375	7.368	10.13
	Verical Bar-Dia 16mm	KG		20	0.475	0.7493296	7.12
					Area	Thk	
	Logo Plate	KG		1	0.07065	0.001	0.000071
		KG				Total Wight for 2.4 m Railing (A)	49.91
	Railing per 1m Weight( A / 2.4 m)	KG				B=	20.8
	Total Railing Weight (A x B)	MT					4.16
69	Providing and Fixing SS 304 Outdoor Dustbin(Pivoted Type and Mounted on SS Poles) of 55 liters capacity all complete to the satisfaction of the Engineer in charge.		111				111.00
70	Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead of 5 km Item No 17.4 KSRRB M100-4.1-Earth	Cum	1.00	30188.97			30188.97
71	Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead of 5km Item No 17.4 KSRRB M100-4.1-Debris	Cum	1.00	5342.75			5342.75

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 1.2 Rate Analysis of Road & Other Work for DPR 3

	Taking out existing CC interlocking paver blocks from footpat			
	rubbish etc., disposal of unserviceable material to the dumping gr		•	•
1	separately and stacking of serviceable material within 50 metro			
•	Charge.(RA attached)	e leau as	per direction	i di Liigilleer-iii-
	Charge.(KA attached)			
	Basic rate		68.16	
	Add 10% For area weightage (Mangalore City)		6.82	
		Rate	74.98	
		Nate	74.30	Sqiii
	KCDDD M200 Diamontling of comput concrete powerest by	mashani	aal maana i	loina nuoumotio
	KSRRB M200.Dismantling of cement concrete pavement by			
	tools, breaking to pieces not exceeding 0.02 cum in volume and			
2	disposal of dismantled material stacking serviceble and unservice			
_	per specifications.MORTH specification No.202.(Including transpo	orung char	ges,loading a	ind unloading for
	lead 5km-Extra)			
	(KSRRB 18-19,Page No 140,SI No : 18.47)			
	Basic rate		899	
	Initial Lead of 5km		13	
	Add 10% For area weightage (Mangalore City)		89.9	
		Rate	1001.90	
		Nate	1001.90	Cum
	KCDDD MOOO Diamontaling of least Stone and Channel KCDDD N	4000 OC F		aub atawa bu
	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M			erb stone by
3	Manual means and disposal of dismantled materials with all lifts a	na compie	ete as per	
Ū	specifications.MORTH Specification No.202.			
	(KSRRB 18-19,Page No.141,S.I.No.18.49)			
	Basic rate		12.00	
	Dasic rate			
			1.20	
	Add 10% For area weightage (Mangalore City)	Rate		
		Rate	1.20 <b>13.20</b>	
	Add 10% For area weightage (Mangalore City)		13.20	Rmt
	Add 10% For area weightage (Mangalore City)  KSRRB M200-13.1. Dismantling of existing structures like culv	erts, bridg	13.20 ges, retaining	Rmt walls and other
	Add 10% For area weightage (Mangalore City)  KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st	erts, bridg eel work,	13.20 ges, retaining including T&F	walls and other and scaffolding
4	Add 10% For area weightage (Mangalore City)  KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of	erts, bridg eel work, unservicea	13.20 ges, retaining including T&F able material	walls and other and scaffolding and stacking the
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	Add 10% For area weightage (Mangalore City)  KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)	Rate  erts, bridgeel work, unservices  Rate  erts, bridgeel work, unservices  cy)Steel work, unservices  rectangle work, unservices  Rate	13.20 ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto
	Add 10% For area weightage (Mangalore City)  KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Value Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB 300-50. Scarifying bituminous course 50mm to 75mm to	Rate  Rate  erts, bridg eel work, unservicea Rate  erts, bridg eel work, unservicea y)Steel work excluding of	13.20 ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30 g with premix	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto an experience of sections upto a scaffolding and stacking the scaffolding and scaffolding and stacking the scaffolding and scaffolding
5	KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A a Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB 300-50. Scarifying bituminous course 50mm to 75mm to dressing by road roller attached with scarifier without disturb	Rate erts, bridgeel work, unservices Rate erts, bridgeel work, unservices Steel work, unservices Steel work Excluding of	13.20 ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30 g with premix ase and stade	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto the carpet / surface cking the debris
	KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A a Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB 300-50. Scarifying bituminous course 50mm to 75mm to dressing by road roller attached with scarifier without disturb including cost of all labour charges, HOM of machineries compared to the control of the control of the control of the culv structures like culv structures like culv structures like culv structures like culv structure comprising of masonry cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A labour charges, HOM of machineries complete the culv structure comprising structures like culv	Rate erts, bridgeel work, unservices Rate erts, bridgeel work, unservices Steel work, unservices Steel work Excluding of	13.20 ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30 g with premix ase and stade	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto the company of S
5	KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A a Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB 300-50. Scarifying bituminous course 50mm to 75mm to dressing by road roller attached with scarifier without disturb	Rate erts, bridgeel work, unservices Rate erts, bridgeel work, unservices Steel work, unservices Steel work Excluding of	13.20 ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30 g with premix ase and stade	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto the company of S
5	KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB 300-50. Scarifying bituminous course 50mm to 75mm to dressing by road roller attached with scarifier without disturb including cost of all labour charges, HOM of machineries con Section 5.(KSRRB 18-19, SI No.19.56,Pg No.146)	Rate erts, bridgeel work, unservices Rate erts, bridgeel work, unservices Steel work, unservices Steel work Excluding of	ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30 g with premix ase and stager specifical	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto the companies of the companies
5	KSRRB M200-13.1. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KSI Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB M200-17.2. Dismantling of existing structures like culv structure comprising of masonry, cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A a Height of 5 m above plinth level excluding Cutting of Rivet—B. E (KSRRB 18-19,18.34,Page No.140)  Basic rate  Add 10% For area weightage (Mangalore City)  KSRRB 300-50. Scarifying bituminous course 50mm to 75mm to dressing by road roller attached with scarifier without disturb including cost of all labour charges, HOM of machineries compared to the control of the control of the control of the culv structures like culv structures like culv structures like culv structures like culv structure comprising of masonry cement concrete, wood work, st wherever necessary, sorting the dismantled material, disposal of serviceable material with all lifts complete as per specifications. A labour charges, HOM of machineries complete the culv structure comprising structures like culv	Rate erts, bridgeel work, unservices Rate erts, bridgeel work, unservices Steel work, unservices Steel work Excluding of	13.20 ges, retaining including T&F able material lechanical Me 9,18.20,Page  390 39 429.00 ges, retaining including T&F able material rk in all types dismembering  1893 189.3 2082.30 g with premix ase and stade	walls and other and scaffolding and stacking the eans. A. Cement No.139)  Cum  walls and other and scaffolding and stacking the of Sections upto a scapet / surface cking the debristions. MORTH /

		Rate	42.90	Sqm
	WORDS and to the state of the s	. = 0		
7	KSRRB 300-46. Scarifying by mechanical means stone metal crus 20mm premix carpet I surface dressing and stacking of old service labour charges, HOM complete as per specifications.  MORTH I Chapter 3.(KSRRB 18-19,SI No.19.52,Pg No.146)			•
	Basic rate		39	
	Add 10% For area weightage (Mangalore City)		3.9	
	3 3 \ 3 //	Rate	42.90	Sqm
8	KSRRB M200-12.1. Dismantling of existing structures like culve structure comprising of masonary, cement concrete, woodwork, stewherever necessary, sorting the dismantled material, disposal of userviceable material with all lifts complete as per specifications. i)Dismantaling Brick/Tile work B.In Cement mortar (KSRRB 18-19,Page No 137,SI No: 18.23)	eel work,	including T&F	and scaffolding
	Basic rate		351	
	Add 10% For area weightage		35.1	
		Rate	386.10	Cum
9	Removing B.S slab of drain and stacking.(KSRB 18-19,5.32,Page	No.27)		
	Basic rate		98	
	Add 10% For area weightage		9.8	
		Rate	107.80	Sqm
	specifications . A. With steel components(KSRRB 18-19,Page No	187,SI No	,	
	Basic rate		3829	
	Add 10% For area weightage (Mangalore City)	Doto	382.9	
		Rate	4211.90	Each
11	KSRRB M300-14. Excavation for roadwork in all types of soil value capacity including cutting and loading in tippers, trimming bottom requirements of lines and grades and cross sections, and transposed to the section of the section	n and sid	de slopes,in	accordance with
	Basic rate for 1KM		41	
	Extra for carriage beyond 1km and upto 5km		10.24	
	Add 10% For area weightage (Mangalore City)		5.12	
		Rate	56.36	Cum
12	KSRB 2-4: Refilling available earth around pipe lines, cables in compacting each deposited layer by ramming after watering wit including cost of all labour complete as per specifications.(KSRB 1 Basic rate	h lead u	pto 50m. and	l lift upto 1.5 m.
	Add 10% For area weightage (Mangalore City)		120	
	- tag 10701 of area weightage (mangalore oity)	Rate	132.00	
13	KSRRB 300-58. Compaction of original ground by mechanical me occuring during rolling including cost of all labour, HOM complet MORTH I Chapter 3 (KSRRB 18-19,SI No.19.64,Pg. No.147)		•	•
	,	1	1 -	
	Basic rate Add 10% For area weightage (Mangalore City)		6 0.6	+

		Rate	6.60	Sqm
		Nate	0.00	- Yili
14	KSRB 4-1.6; Providing and laying in position plain cement concrewith 20mm and down size graded granite metal coarse aggregates 0.53cum, machine mixed, concrete laid in layers not exceeding foundation, plinth and cills, including cost of all materials, laspecifications. Specification No. KBS 4.1, 4.2 (KSRB 18-19,P.No.13, SI.No. 4.6)	@ 0.878 g 15 em	8 cum and fines. thick, wel	e aggregtes @ I compacted, in
	Basic Rate		5900	
	Add 10% For area weightage (Mangalore City)		590	
		Rate	6490.00	Cum
15	KSRRB 400 Granular Sub-Base with Coarse Graded Mater Construction of granular sub-base by providing Coarse graded cru/basalt material, speading in uniform layers with motor grader of place method with rotavator at OMC, and compacting with vibrator complete as per MORTH specifications clause 401 and Table 400-(SI.No.20.4 of KPWD SR 2018-19)	shed stor on prepar ry roller to	ne aggregates red surface, ro achieve the	s of granite / trap mixing by mix in
	Basic Rate		2166	
	Add 10% For area weightage (Mangalore City)		216.6	
		Rate	2382.60	Cum
	KSRB 4.2.1 : Providing and laying in position reiforcement cement			
16	super plasticisers @3 liters confirming to IS 9103-1999 reafirmed in layers not exceeding 15cms thick, vibrated for all works in founwalls, return walls, walls (any thickness) including attached pil buttresses, bed blocks, anchor blocks & plinths etc., In machinery, curing, complete but excluding cost of reinforcement as (KSRB 18-19, Page No 14, SI No :4.10)	dation for asters, c cluding	footings, ped columnspillars cost of I	dastals, retaining
	Basic Rate		6198	
	Add 10% For area weightage (Mangalore City)		619.8	
		Rate	6817.80	Cum
17	KSRB 4.6.1 Providing and removing centering, shuttering, str formwork for foundations, footings, bases of columns for n materials,labour complete as per specifications. Specification No. KSB 4.6.2 (KSRB 18-19,Page No 16,SI No : 4.28)			
	Basic Rate		263	
	Add 10% For area weightage (Mangalore City)	Dete	26.3	
		Rate	289.30	Sqm
18	KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work inconstraighting, cutting, bending, hooking, placing in position, lapping and/with binding wire and anchoring to thr adjoing members wherever reliaps, hooks and wastage shall not be measured and paid) cost of recomplete as per specifications. Specification No. KBS4.6.3. do with TMT bars Fe500 (KSRB 18-19, Page No 18, SI No : 4.46.2)	or weldin necessary	complete as	per design
	Basic Rate		70782	
	Add 10% For area weightage (Mangalore City)		7078.2	
		Rate	77860.20	MT
				1

19	KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction atterial Gravel/Murrum with all lifts & leads, transporting to site, specompacted to meet requirement of Table No. 300-2 complete as peearth, watering charges & compaction by vibratory rollercompaction density) MORTH Specification No. 305 (KSRB 18-19,Page No 146,SI No : 19.62 & 17.4)  Basic Rate  Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage	oreading, er specific	grading to rec cations (includ	quired slope and ding cost of 97% of proctors
	excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.0 Rs/ Tkm x 1.28 T x 20km		51.2	
	Sub Total		564.2	
	Add 10% For area weightage (Mangalore City)		56.42	
		Rate	620.62	Cum
20	OPC 25mm and down size graded granite metal coarse aggre @0.58cum over a prepared sub-base, coarse and fine a 2016, aggregate cement ratio not to exceed 15:1, Aggregate grad 600-1, optimum moisture content to be determined during trial not to be less than 10 Mpa at 7 days, mixed in a batching plant compacting with 8-10 tonnes vibratory roller, finishing and curing concluse 601 of MORTH V Revision and IS 456 Table-5 -do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fin Batch mix Plant at 75 cum/hr capacity with Slip form paver with ele (KSRRB 18-19, Page No 174, SI No : 22.1.1)	aggregate lation after length control to the contro	e conforminer blending to construction, construction, conted to site, last per specific gate 0.58cumensor.	g to IS: 383- be as per Table oncrete strength aid with a paver, cations.
	Basic Rate		4048	
	Add 10% For area weightage (Mangalore City)		404.8	
		Rate	4452.80	Cum
21	KSRRB M600-1.Construction of dry lean cement concrete @160Kgs,with 25mm and down size graded granite/trap/basalt m fine aggregate @ 0.58cum Sub-base over prepared sub graconfirming to IS:383) aggregate cement ration not to excee 15:1. be as per Table 600-1, cement content to be determined duri strength not to be less than 10Mpa at 7 days,mixed in a batching and compacting with palte compactor,finishing and curing complete 601. (RA attached)	etal coar de with Aggrega ing trail plant,tra	se aggregate (coarse and ite gradation length constr insported to s MORTH spec	at 0.86cum and fine aggregate after blending to action, concrete ite,Manually laid ifications Clause
	Basic Rate		3680	
	Add 10% For area weightage (Mangalore City)		368	
		Rate	4048.00	Cum
		•	i	i e

	T				
	KSRRB M600-2. Providing and Constructing un-reinforced,	•	•		
	Quality concrete for pavements using Grade concrete M40 have				
	Mpa over a prepared base with OPC, coarse aggregate	at 0.64 ct	um, tine agg	regates at 0.3	
	cum,Coarse and fine aggregate conforming to IS:383-				
	2016 and Table 600-3 of MORTH V Revision, with Superplastizer at 3 Its conforming to IS				
	loading materials to batch mix plant by front end loader, mixed i			•	
	per approved mix design,transported to site in transit truck ag				
	compacted and finished in a continuous operation as per	RC-15 incl	luding cost t	for providing o	
	contraction, expansion, co nstruction and longitudinal joints,	joint fille	r, separation	membrane o	
22	impermiable plastic sheet of 125 micron, groove cutting, se	alant prim	er joint sea	lent, debondin	
	strip,dowel bars at 9 kg/cum, tie rods at 1.15 kg/cum, admix	tures as a	approved, cu	uring compound	
	finishing to lines and grades, textured with texturing machine, a	nd curing i	ncluding cost	t of all material	
	labour, hire charges of machineries, all lead & lift charges etc., co	mplete as p	per specificat	ions.	
	Clause 601 of MORTH V Revision and IS 456 Table-5				
	-do- with OPC at 420 kg/cum and coarse aggregate 0.64cum,	fine aggreg	gate 0.36cum	using Concret	
	Batch mix Plant at 75 cum/hr capacity with fixed form paver.				
	(KSRRB 18-19, Page No 175 & 176 , SI No : 22.2.2)				
	Basic Rate		5765		
	Add 10% For area weightage (Mangalore City)		576.5		
		Rate	6341.50	Cum	
	Providing and placing joint sealant compound of cold polysula	hide in the	e grooves af	ter widening th	
	groove to required width, sand blasting the groove face if reco				
	cleaning the groove with air compressor, insertion of debonding		•		
23					
	the sealant manufacturer recommends and pouring the se		•	cluding materia	
	manpower and as shown on drawing and as per MORTH specific	cations clau	ıse 602.		
	(Non SOR Item)				
	Rate Approved as per EOI by MD MSCL Mangalore, Refer				
	Sr.No.2	Rate	115	Rmt	
		Rate	115	Rmt	
		Rate	115	Rmt	
	Sr.No.2  KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar				
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio	n joints lon	gitudinal joint	s and expansion	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete	n joints lon	gitudinal joint	s and expansion	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1	n joints lon	gitudinal joint	s and expansic	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)	n joints lon	gitudinal joint as per spe	es and expansions.Mort	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate	n joints lon	gitudinal joint as per spe	s and expansio	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)	n joints long complete	gitudinal joint as per spe 331 33.1	s and expansio	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate	n joints lon	gitudinal joint as per spe	s and expansions.Mort	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)	n joints long complete	gitudinal joint as per spe 331 33.1 364.10	es and expansic	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me	n joints long complete  Rate  dian kerb	gitudinal joint as per spe 331 33.1 364.10 stone of M-2	es and expansic ecifications.Mort	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join	n joints long complete  Rate  dian kerb ted with ce	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar	Rmt 20 grade cement: 3 (1 cement:	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t	Rate dian kerb ted with ce hickness o	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints excep	Rmt 20 grade cement: 3 (1 cement: ot at sharp curv	
24	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening	Rate dian kerb ted with ce hickness o	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints excep	Rmt 20 grade cement: 3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints excep	Rmt 20 grade cement: 3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,Sl No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charge	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints excep	Rmt 20 grade ceme 1:3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints excep	Rmt 20 grade cement: 3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints excep	Rmt 20 grade cement: 3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.  (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required com	Rmt 20 grade cement: 3 (1 cement: ot at sharp curvapplete etc. as po	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required com	Rmt 20 grade cemeration at sharp curver at sha	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.  (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis	Rate dian kerb ted with ce hickness o y wherever e).	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints exceprequired com	Rmt 20 grade cemel 1:3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate	Rate dian kerb ted with ce hickness of wherever	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required com	Rmt 20 grade cemel 1:3 (1 cement: ot at sharp curv	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)	Rate dian kerb ted with ce hickness o y wherever e).	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required community and the second	Rmt 20 grade ceme 1:3 (1 cement: ot at sharp curv pplete etc. as po	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.  (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)	Rate dian kerb ted with ce hickness of wherever e).  Rate	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required community and the second	Rmt 20 grade ceme 1:3 (1 cement: of at sharp curv plete etc. as p	
25	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.  (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost	Rate dian kerb ted with cehickness of wherevere).  Rate the drawin of all mat	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required community and the second	Rmt 20 grade ceme 1:3 (1 cement: of at sharp curv plete etc. as p	
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost machinery,loading,unloading,lead and lift,transportation etc.,com	Rate dian kerb ted with cehickness of wherevere).  Rate the drawin of all mat	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required community and the second	Rmt 20 grade ceme 1:3 (1 cement: of at sharp curv plete etc. as po	
25	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost machinery,loading,unloading,lead and lift,transportation etc.,com (RA Attached)	Rate dian kerb ted with cehickness of wherevere).  Rate the drawin of all mat	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required community and the second	Rmt 20 grade cement: at sharp curve	
25	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing.  (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost machinery,loading,unloading,lead and lift,transportation etc.,com (RA Attached)  Basic rate of one Kerb stone of M15 Grade =0.0279Cum SI	Rate dian kerb ted with cehickness of wherevere).  Rate the drawin of all mat	gitudinal joint as per specials, labour,	Rmt 20 grade cement: 3 (1 cement: ot at sharp curve plete etc. as per curve pl	
25	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete specification No.3005.1 (KSRRB 18-19,Page No 260,SI No : 35.8)  Basic Rate Add 10% For area weightage (Mangalore City)  Providing and laying at or near ground level factory made Me concrete in position to the required line, level and curvature, join coarse sand), including making joints with or without grooves (t shall not to more than 5mm), including making drainage opening drawing. (Precast C.C. kerb stone shall be approved by Engineer-in-charg (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate Add 10% For area weightage (Mangalore City)  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost machinery,loading,unloading,lead and lift,transportation etc.,com (RA Attached)	Rate dian kerb ted with cehickness of wherevere).  Rate the drawin of all mat	gitudinal joint as per special 331 33.1 364.10 stone of M-2 ment mortar f joints except required community and the second	Rmt 20 grade cement: 1:3 (1 cement: tot at sharp curve) plete etc. as per  Cum  of CC M20 and hire charges of	

	Add difference in cement concrete of M15 to M20 Grade		392.48	
	Total Rate		15482.09	
	Add 10% For area weightage (Mangalore City)		1548.21	
	riad 10701 of alloa Weightago (mangaloro oity)	Rate	17030.30	
		11415	11000100	- Cum
27	Providin and fixing pre cast solid concrete water table(longitudina CC M20 and jointed with CM 1:3 and finishing cutting, including of machinery,loading,unloading,lead and lift,transportation etc.,co (RA Attached)	cost of all r	•	•
	Basic rate of one Kerb stone of M15 Grade =0.0279Cum SI No.5.30 Pg No.27 of KSRB 18-19		421	
	Rate for 1cum of Kerb Stone		15089.61	
	Add difference in cement concrete of M15 to M20 Grade		392.48	
	Total Rate		15482.09	
	Add 10% For area weightage (Mangalore City)		1548.21	
		Rate	17030.30	Cum
28	on new plastered concrete surfaces, with materials, labour compl section 8. (KSRRB 18-19,Page No 180,Sl No : 24.1) Basic Rate Add 10% For area weightage (Mangalore City)	Rate	80	
29	P/F Square shape 600mmx450 mm precast R.C.C. manhole cove (Rate analysis attached)  Rate Arrived as per Rate analysis	er with frar	me	
	Basic Rate		917	
	Dadio Nate	Rate		Nos.
		Rate	317	1400.
30	Providing and Fixing Recessed Inception chamber cover - size: (6  Basic Rate	600 x 450	)mm Material	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.15	Rate	3500.00	Nos.
31	KSRRB M300- Wrought iron and mild steel welded work KSRRI welded work (using angles, square bars, tees and channel grills, tree guards of any size and design etc. including cost of scree complete fixed in position but without the cost of excavation ar separately complete as per specifications.(KSRB 18-19,SI.No.19. Basic Rate	gratings wens and wond concrete	with grating from the distribution of the dist	ames, gates and or bolts and nuts hich will be paid
	Add 10% For area weightage (Mangalore City)		718.7	
		Rate		Quintal
			. 300.7	
32	KSRB 12-8.2 : Constructing brick masonry inspection chamber inside dimension ) for pipeline with one or two inlets, using tab designation 50 in cement mortar 1:5, C.I cover with frame (light total weight of cover with frame to be not less than 38 kg (weight kg) R.C.C. top slab with cement concrete M 15 with 20mm a concrete M 5 with 40mm and downsize granite metal inside pla 1:3, finished smooth with a floating coat of cement on walls and design including cost of materials, labour charges, curing comp	le moulde duty) 455 ht of cover nd downs astering 12 bed conci	d non-modula ix610mm inte 23kg and we ize granite memore thick with the complete	ar bricks of class rnal dimensions, eight of frame 15 etal, foundation h cement mortar as per standard
	No. KBS (P.No. 76/ I.No.11.52 of PWD SR 2018-19)	note de pe	or opcomoduc	пз. ореспісацоп
	No. KBS (P.No. 76/ I.No.11.52 of PWD SR 2018-19)	Total da pe		
	No. KBS		8296 829.6	

		Rate	9125.6	Nos.
33	Providing gully pipe lowering, laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraulical include all jointing materials, testing apparatus and water for test charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	lly testing	of the pipe li	ne.The rate shall
	Basic Rate		297	
	Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)		4.7	
		Rate	301.7	Rm
34	KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100n screwed down or hinged grating with or without vent arm including floors, cost of materials, labour, testing, complete as per specificati (KSRB SR 2018-19,P.No.88, SI.No.12.89)	cutting ar	nd making go	od the walls and
	Basic Rate		830	
	Add 10% For area weightage (Mangalore City)	Rate	83	Nos.
		Nate	913	1403.
35	KSRRB M800-29.3. Cable Duct Across the road KSRRB M800-29. cement concrete pipe duct, 300 mm dia, across the road (new consin cuts and toe of slope to toe of slope in fills, constructing head w fill of granular material over top and sides of RCC pipe as per II layer of granular material free of rock pieces, outer to outer dissubject to minimum450 mm in case of double and triple row ductive level of duct to be above higher than ground level to prevent entry 1997 and approved drawings complete as per specifications. services.  (KSRRB 2018-19,Pg No 186,SI.No.24.36)	struction) alls at bo RC:98-19 tance of ts, joints y of wate	, extending from th ends, proving, bedded of pipe at least to be made I r and dirt, all	om drain to drain iding a minimum on a 0.3 m thick half dia of pipe eak proof, invert as per IRC: 98 -
	Basic Rate		5022 502.2	
	Add 10% For area weightage (Mangalore City)	Rate	502.2 <b>5524.20</b>	
		11010	0021120	
36	Providing and laying Dia 225mm HDPE Power Duct with Sill dimensional ratio of 13.5, Deflection not greater than 5% who temparature 90°C under the over burden soil presuure and oth ASTMF 2160 and /or NEMA TC7. The expected service life of HDF not be less than 50 years. (Market Rate)	en expos ner physi	ed to the n cal properties onduits and a	ormal operating s comforming to accessories shall
	Basic Rate		2300	
	Deduct GST @ 18%  Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item		-414	
	No.50,Pg.No.123)		78	
	Add 10% For area weightage (Mangalore City)	Data	7.8	
		Rate	1971.80	KM
37	Providing and laying Dia 160mm HDPE Power Duct with Sill dimensional ratio of 13.5, Deflection not greater than 5% who temparature 90°C under the over burden soil presuure and oth ASTMF 2160 and /or NEMA TC7. The expected service life of HDF not be less than 50 years. (Market Rate)	en expos ner physi	ed to the n	ormal operating comforming to
	Basic Rate		1215	
	Deduct GST @ 18%		-218.7	
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123)		66	
	Add 10% For area weightage (Mangalore City)	Rate	6.6 <b>1068.90</b>	
		rate	1000.90	IXIII
	Page 57			

	T		T	
	Providing and Fixixng Spacers for Power Ducts of size 225 mm,	n be plac	l ed at an inter	val of 1.5 meter
38	Spacers shall be made of ABS raw material.  (Market rate)	o so plac		var er 1.6 meter.
	Basic Rate		1003	
		Rate	1003.00	
			1000100	
39	Providing and Fixing Spacers for Power Ducts of size 160 mm, to Spacers shall be made of ABS raw material. (Market rate)	o be plac	ed at an inter	val of 1.5 meter.
	Basic Rate		1947	
		Rate	1947.00	Nos.
40	Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lub comforming to ASTMF 2160 and /or equivalent indian standard loading and unloading at both destination and rolling,lowering into of pipe etc.Complete. (Market Rate)	and con	veying to wo	ork site including
	Basic Rate		685	
	Deduct GST @ 18%		-123.3	
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123)		36	
	Add 12% For area weightage (Mangalore City)		3.6	
		Rate	601.30	Rm
	Providing and laying heavy duty cobble stones 60mm thick, using			
41	tons compaction force thereby forcing part of sand underneath to compaction of paver surface joints into its final level, including cost machineries complete as per specifications. (KSRB 18-19, Pg No 103,SI No : 14.6)			
	Basic rate		1056.00	
	Add 10% For area weightage (Mangalore City)		105.6	
		Rate	1161.60	Sqm
42	Providing and laying heavy duty Tactile Tiles (Direction and Stop ti Yellow in colour, using cement and course sand for manufacture of a minimum compressive strength of 281 kg per sqm over 50mm the compacting with plate vibrator having 3 tons compaction force therefore up in between joints, final compaction of paver surface joints materials, labour and HOM of machineries complete as per specific (Non SOR Item)	of blocks of ick sand eby forcire into its fi	of approved s bed (average ng part of san	ize, shape with thickness) and d underneath to
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12	Rate	912.00	Sqm
43	Providing and laying heavy duty cobble stones 75mm thick, manufacture of blocks of approved size, shape and colour with a kg per sqm over 30mm thick sand bed (average thickness) and tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. (KSRB 18-19,Page No 103,SI No : 14.7)	minimum compactir n to com	n compressive ng with plate e up in betw	e strength of 281 vibrator having 3 veen joints, final
	Basic rate		1114	
	Add 10% For area weightage (Mangalore City)		111.4	
	Add 10% For area weightage (Mangalore City)	Rate	111.4 <b>1225.40</b>	

KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 -using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (KSRRB 18-19, S.I.No. 21.17.2, Page No. 160) Basic rate 7839 Add 10% For area weightage (Mangalore City) 783.9 8622.90 Cum Rate KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying w ith a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. 45 Clause 507 of MORTH V revision No. 509 - using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4 % VG-40 Bitumen (KSRRB 18-19, S.I.No. 21. 22.6, Page No. 162) Basic rate 8761 Add 10% For area weightage (Mangalore City) 876.1 Rate 9637.10 Cum KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retroreflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the 46 sign board & 60mm below ground level, the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier. 900MM Equilateral Triangle-TYPE XI (KSRRB 18-19, Page No 180, SI No: 24.2.1) **Basic Rate** 3511 Add 10% For area weightage (Mangalore City) 351.1 3862.10 Nos Rate KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retroreflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the 48 sign board & 60mm below ground level, the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge.

	10 years warranty for Retro Reflective Sheeting from the original sh	neeting m	anufactures o	as nor clause
	6.9 in IRC: 2012 & a certified copy of three years outdoor exposure for the product offered shall be obtained from the supplier.  900MM Octagon Stop Board-TYPE XI (KSRRB 18-19,Page No 180,SI No : 24.2.6)	_		•
	Basic Rate		4958	
	Add 10% For area weightage (Mangalore City)		495.8	
	That 10701 of area weightage (Mangalore Oity)	Rate	5453.80	
		Nato	0400.00	1100
49	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufactur reflective cautionary, mandatory & Informatory signboards made or sheeting confirming to type XI standards of IRC:67:2012 specificat composite panel sheet having minimum 0.30 mm thick aluminu support frame of 25X25X3mm MS angle and mounted on 75 mm of Total height 2.70 m with clear height of not less than 2.10 m from sign board & 60mm below ground level, the sign post should be pand two coats of synthetic enamel paint of black and white colour with firmly fixed to the ground by means of foundation with M20 grade of including cost & conveyance of all materials, equipment, machilloading charges necessary for satisfactory completion of the works	ut of cube ions & fix m skin of lia OR 75 n the gro painted w with band cement co nery & la as direct	e corner micro ced over 4mm on both sides 5X75X6mm m und level to the vith be coat of s of 30 cm he concrete of 450 abour with all ced be engine	prismatic grade thick aluminium & fixed over a ild steel angle to the bottom of the fred oxide paint ight alternatively emX45cmX60cm leads and lifts, er in-charge.
	10 years warranty for Retro Reflective Sheeting from the original sh 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure for the product offered shall be obtained from the supplier. 600MM Circle-TYPE XI (KSRRB 18-19,Page No 180,SI No : 24.2.3)			
	Basic Rate		3118	
	Add 10% For area weightage (Mangalore City)		311.8	
		Rate	3429.80	
53	Direction and Place Identification Signs upto 0.9 sqm Size Board: place identification retro-reflectorised sign as per IRC:67 made of h Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not excisted single angle iron post 75 x 75 x 6 mm firmly fixed to the groun foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 edrawing.  KSRRB 18-19,Pg No.180 SI No.24.3	eeding 0	sity grade she .9 sqm suppo ans of properl	eeting vide rted on a mild y designed
	Basic Rate		6927	
	Add 10% For area weightage (Mangalore City)		692.7	
	The state of the s	Rate	7619.70	Sam
		. 1010		_ <del>_</del>
51	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing reflectorised cautionary, mandatory and informatory signboards magrade sheeting confirming to 600x800 MM type XI standards of IR 4 mm thick aluminium composite panel sheet having minimun 0.30 fixed over a support frame of 25x25x3 mm MS angle and mounted steel angle of total height 2.70m with clear height of not less than 2 bottom of the sign board & 60 cm below ground level. The sign posted oxide paint and white colour with brands of 30 cm height alternated means of foundation with	ade out of C :67:201 thick alu on 75mn 1.10 m fro at should	f cube corner  12 specification  13 specification  14 skin of  15 dia OR 75x  16 m the ground  16 be painted wi	micro prismatic ons & fixed over on both sides & 75x6mm Mild level to the th one coat of
	M20 grade cement concrete of 45 cm x45 cm x 60 cm including consequipment, machinery & labour with all leads and lifts, loading character completion of the work as directed by engineer in charge. 10 years from the original sheeting manufacturer as per clause 6.9 in IRC 20 outdoor exposure report from an independent test lab for the production of the pr	ges nece warranty )12 & a c	essary for sati for retro refle ertified copy o	sfactory ctive sheeting of three years
	Page 60			

KSRRB KSRRB Raised I body and light enter of Categ length sl each sid cylindrication be a min without complete KSRRB  Basic Ra Add 10%  Road M Surface: glass be applied holes co (KSRRB  Basic Ra Add 10%	M800 Road markers / Road stud M800 Road markers I Road studKSRRB MS00-35. Survey and Markers made of polycarbonate and ABS(Active panels with micro prismatic lens capable of pering the lens face and shall support a load of 16000 kg ory A of MORTH Circular No RW/ NH/33023/10-97- DO I hall not exceed 50 mm, 1DO mm and 102 mm and with the eand the slope to the base shall be 35 degree. The stall shanks, (of diameter not less than 19 mm and height not simulate and using epoxy resin based adhesive as per eas directed by the engineer 18-19,Pg No.187,SI No.24.41  Marking with hot applied Thermoplastic Compound with Foroviding and laying of hot applied thermoplastic compound ads at 250 gms and 2 ltr of primer per sqm area,thick	rylonitrile providing tested ir III Dt 11.0 minimum rength of ot less the nanufac  Rate  Reflectrisi und 2.5m	Butadiene S total internal accordance 6. 1997. The h reflective are detachment an 30 mm) fro d for the share cturer's recon  289 28.9 317.90  ng Glass Bea	Moulded Shank tyrene) moulded reflection of the to Specifications height, width and a of 13 Sqcm on of the integrated om the body is to nks to go inside, nmendation and
KSRRB KSRRB Raised I body and light enter of Categ length sl each sid cylindrication be a min without complete KSRRB  Basic Ra Add 10%  Road M Surface: glass be applied holes co (KSRRB  Basic Ra Add 10%	M800 Road markers / Road stud M800 Road markers I Road studKSRRB MS00-35. Survement Markers made of polycarbonate and ABS(Acd reflective panels with micro prismatic lens capable of ering the lens face and shall support a load of 16000 kg ory A of MORTH Circular No RW/ NH/33023/10-97- DO I hall not exceed 50 mm, 1DO mm and 102 mm and with the eand the slope to the base shall be 35 degree. The stal shanks, (of diameter not less than 19 mm and height not immum value of 500 Kg. Fixing will be by drilling holes of nails and using epoxy resin based adhesive as perestast a directed by the engineer 18-19,Pg No.187,SI No.24.41  Intelligent Thermoplastic Compound with Fixed Providing and laying of hot applied thermoplastic compound ads at 250 gms and 2 ltr of primer per sqm area,thick	apply and crylonitrile providing tested in III Dt 11.0 minimum trength of lot less than the roamanufactors.  Rate  Reflectrisiund 2.5m	Installtion of Butadiene S total internal accordance 6. 1997. The reflective area detachment of an 30 mm) frod for the share cturer's reconstant and the second sec	Moulded Shank tyrene) moulded reflection of the to Specifications height, width and a of 13 Sqcm on of the integrated om the body is to nks to go inside, nmendation and Nos.
KSRRB Raised I body an light ente of Categ length sl each sid cylindrica be a mir without complete KSRRB  Basic Ra Add 10%  Road M Surface: glass be applied holes co (KSRRB  Basic Ra Basic Ra Basic Ra Add 10%	M800 Road markers I Road studKSRRB MS00-35. Sure Pavement Markers made of polycarbonate and ABS(Actoreflective panels with micro prismatic lens capable of pering the lens face and shall support a load of 16000 kg ory A of MORTH Circular No RW/ NH/33023/10-97- DO I hall not exceed 50 mm, 1DO mm and 102 mm and with the earn of the slope to the base shall be 35 degree. The stal shanks, (of diameter not less than 19 mm and height not immum value of 500 Kg. Fixing will be by drilling holes of pails and using epoxy resin based adhesive as perestas directed by the engineer 18-19,Pg No.187,SI No.24.41  Intelligent Thermoplastic Compound with Foreviding and laying of hot applied thermoplastic compound ads at 250 gms and 2 ltr of primer per sqm area,thick	apply and crylonitrile providing tested in III Dt 11.0 minimum trength of lot less than the roamanufactors.  Rate  Reflectrisiund 2.5m	Installtion of Butadiene S total internal accordance 6. 1997. The reflective are detachment an 30 mm) frod for the shall cturer's reconstant and a sector of the shall cture and the shall cture are shall considered as a sector of the shall cture and the shall cture are shall considered as a sector of the shall cture and the shall cture are shall considered as a shall considered as a shall cture and the shall cture are shall considered as a shall cture as a shall cture and the shall cture are shall cture as a shall cture are shall cture as a shall cture as a shall cture are shall cture as a shall ctur	Moulded Shank tyrene) moulded reflection of the to Specifications height, width and a of 13 Sqcm on of the integrated om the body is to nks to go inside, nmendation and Nos.
KSRRB Raised I body an light ente of Categ length sl each sid cylindrica be a min without complete KSRRB  Basic Ra Add 10%  Road M Surface: glass be applied holes co (KSRRB  Basic Ra Add Surface: Basic Ra Add Surface: Basic Ra Add Ra Basic Ra	M800 Road markers I Road studKSRRB MS00-35. Sure Pavement Markers made of polycarbonate and ABS(Actoreflective panels with micro prismatic lens capable of pering the lens face and shall support a load of 16000 kg ory A of MORTH Circular No RW/ NH/33023/10-97- DO I hall not exceed 50 mm, 1DO mm and 102 mm and with the earn of the slope to the base shall be 35 degree. The stal shanks, (of diameter not less than 19 mm and height not immum value of 500 Kg. Fixing will be by drilling holes of pails and using epoxy resin based adhesive as perestas directed by the engineer 18-19,Pg No.187,SI No.24.41  Intelligent Thermoplastic Compound with Foreviding and laying of hot applied thermoplastic compound ads at 250 gms and 2 ltr of primer per sqm area,thick	rylonitrile providing tested ir III Dt 11.0 minimum rength of ot less the nanufac  Rate  Reflectrisi und 2.5m	Butadiene S total internal accordance 6. 1997. The h reflective are detachment an 30 mm) fro d for the share cturer's recon  289 28.9 317.90  ng Glass Bea	tyrene) moulded reflection of the to Specifications height, width and a of 13 Sqcm on of the integrated om the body is to nks to go inside, nmendation and Nos.
Road M Surface: glass be applied holes co (KSRRB	For area weightage (Mangalore City)  arking with hot applied Thermoplastic Compound with F  Providing and laying of hot applied thermoplastic compound  ads at 250 gms and 2 ltr of primer per sqm area,thick	Reflectrisi und 2.5m	28.9 <b>317.90</b> ng Glass Bea	Nos. ads on Concrete
Road M Surface: glass be applied holes co (KSRRB	For area weightage (Mangalore City)  arking with hot applied Thermoplastic Compound with F  Providing and laying of hot applied thermoplastic compound  ads at 250 gms and 2 ltr of primer per sqm area,thick	Reflectrisi und 2.5m	28.9 <b>317.90</b> ng Glass Bea	Nos. ads on Concrete
Road M Surface: glass be applied holes co (KSRRB	arking with hot applied Thermoplastic Compound with F Providing and laying of hot applied thermoplastic compounds ads at 250 gms and 2 ltr of primer per sqm area,thick	Reflectrisi und 2.5m	317.90 ng Glass Bea	Nos. ads on Concrete
Surface: glass be applied holes co (KSRRB	Providing and laying of hot applied thermoplastic compount ads at 250 gms and 2 ltr of primer per sqm area,thick	Reflectrisi und 2.5m	ng Glass Bea	ads on Concrete
Surface: glass be applied holes co (KSRRB	Providing and laying of hot applied thermoplastic compount ads at 250 gms and 2 ltr of primer per sqm area,thick	und 2.5m	•	
	glass beads as per IRC:35.The finished surface to be Implete as per specifications.MORTH specification No.803 18-19,Page No 182,SI No : 24.15)	level,unifo	2.5mm is exclorm and free	lusive of surface from streak and
Add 10%			429	
	For area weightage (Mangalore City)	Doto	42.9	
		Rate	471.90	Sqm
finish, G seating 600mm have 110 4.3 x 5. recycle Informat 54 panel of of size 4 Shelter. outdoor shall be (NON SO	g and Fixing of Bus shelter(on prepared foundation) made alvanised Aluminium powder coated roofing and elect shall be made of SS 304 tubular sections for seat and with a minimum backrest support of 450mm.Bus shelte 00X400mm Electronic display.The electronic display boar 1mm dia. Diffused. LED's having Amber colour.Dual be waste & other for dry waste.Each bin shall be with non Panel-display equipment with information area of 140 area not less than 600-900mm with integrated 8mm toug 500mm x 1650mm and 2100mm x 2000mm shall be in This shall be backlit type with SS box framing sides and WiFi Router.The Foundation slab shall be made in min I trust proof hot deep galvanized powder coated etc.The made in the DR Item)	tronic circ back res or shall had on system minimum 0 x 1400 ghened gl ntegrated d back co M25 cond	cuit to control t.each unit size t.each scrolling t.each scrolling t.each scream touch scream touch scream t.each scream touch	I its lighting. The ze of 4500mm x Display board to g type with Oval, adopted one for 70Ltrs. Interactive reen LED display ment Area 2 nos esign of the Bus sion for installing at iron nuts, bolts
Rate Ap				
1100071	proved as per EOI by MD MSCL Mangalore,Refer	Rate	1500000	Nos.

55	Providing & installing of E- toilet with Super structure of the electivith inner room size 1.2 x 0.8 x 2.4 (LXWXH)meters and Size of 2.30x1.25x2.80 (LXWXH) Total area 35 Sft. with Built-acess control SS Grade 304, Toilet floor and closet are to be stainless steel of water tank with minimum 225 Lit capacity and Acess control us based on automatic payment collection mechanism exit from the uniside the unit with gloves on opening the door. E-Toilet shall includes Automatic Pre flush cleaning before use, Automatic clos Automatic platform cleaning mechanism programmed after speciswitch is to be provided for manual operation. Standard features sland cloth hanger. The E-Toilet shall have Alert to users-different in the provided in the unit also with Voice guidence in the unit for use Real time data to be provided from the unit through web for known users per day and coins collected.	electron olled mail grade 30 ing coin unit shou be Auto et washific number ould incondication rs. Web 6	ic toilet overal door and side of the control of th	all size in meters de walls made of hall have Built-in entering the unit. Automatic lights g system which m after use and on to these flush use', busy are to ort-GPRS based
	E-toilet shall have Modular and portable design enabling easy a ceneter and web portal facilities for registering complience and tradisplay in LED,Printed instruction stickers are to be provided. advertisement dispaly to be povided on the exterior of the unit for in Backup power facility like UPS is to be provided to supplement upto Base of the unit to be placed on a suitable concrete structure with a (Non SOR Item)	acking us For Advo acome ge o 30 Min	sage,coin colle ertisment pur eneration and	ection etc.Status pose space for
	Baisc rate		575000	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1	Rate	575000	Nos
	01.110.1	rato	070000	1103.
56	KSRB 6-2.3: Providing and constructing burnt brick masonry with of standard size of class designation 5.0Newton per sqmm (table basement and superstructu/re including cost of materials, labour class per specifications. Specification No. KBS 6.2. (KSRB 18-19,Page No.29,SI.No.6.7)	moulde	d) with cemel caffolding, cu	nt mortar 1:6 for
	Basic rate		7797	
	Add 10% For area wightage	Doto	779.7	
		Rate	8576.70	Cum
57	KSRB15-3.8: Providing 18mm thick cement plaster in single of masonry including rounding off corners wherever required smoot scaffolding, including cost of materials, labour, curing complet 19,Page No.116,SI No.15.16)	h renderi	ing, : Providin er specificatio	ng and removing
	Basic rate		262 26.2	
	Add 10% For area wightage	Rate	26.2 288.2	
		Nate	200.2	Sqiii
	Providing and fixing 450mm wide X 600mmX 20mm thk.RIVERWA on surface of seating as directed by architect (Non SOR Item)	SHED B	I BLACK GRAN	ITE CLADDING
	Basic Rate		3527	
	Rate Approved as per EOI by MD MSCL Mangalore, Refer	Rate	3527.00	Sqm
		-		
59	Supply and Fixing of Traffic signal Straight pole of 6 mtr, inner dia base plate size of (LXWXT) 200mm X200mmX6mm painted with renamel paint of yellow colour assembly G.I., class B, as per technic	edoxide a	and double co	at with synthetic
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.5	Rate	18691	Nos.
			1	I

60	Supply and fixing of Traffic signal Cantilever pole Class B having a height of 6m including extension arm assembly having outer dia length and base plate of size 300mm X 300mm with thickness of base as per technical specification & drawings. (NON SOR Item)	meter of	75mm with a	rm span of 4 mtr
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.6	Rate	52850	Nos.
61	Supply and fixing of 300 mm dia – single source – LED retrofit - Re (NON SOR Item)	ed (blow)	as per Specif	ication
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.7	Rate	11082	Nos.
62	Supply and fixing of 300 mm dia – single source – LED retrofit - An (NON SOR Item)	l nber (blov	w) as per Spe	L cification
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.7	Rate	11082	Nos.
63	Supply and fixing of 300 mm dia – single source – LED retrofit - Gr Specification (NON SOR Item)	l een (arro	l w/U- Turn) Ef	l N-12368 as per
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.8	Rate	13973	Nos.
64	Supply and fixing of 300 mm dia – single source – LED retrofit - Re Specification (NON SOR Item)	ed (ped. s	tanding) EN-	12368 as per
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.9	Rate	11082	Nos.
65	Supply and fixing of 300 mm dia – single source – LED retrofit - Gr Specification (NON SOR Item)	l een (ped	.walking) EN-	12368 as per
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.10	Rate	13973	Nos.
66	Supply and fixing of 300 mm dia - No Right Turn/No Left turn/No Si UV stabilized ink on face plate EN-12368 as per Specification (NON SOR Item)	l traight/No	o 'U' Turn asp	ects by using
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.11	Rate		Nos.
67	Providing and fixing of S.S. Bollards(SS304) on footpath as specific charge Basic Rate	ed and d	irected by En 4500	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.13	Rate	4500.00	
68	Providing and fixing of railing as detail design in MS HOLLOW SEC approved ), with vertical support of 0.9m @2.2mc/c , all complete tarchitect.(Non SOR Item)			
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore,Refer		100000.00	
	Sr.No.26	Rate	100000.00	MT
	1	l		1

69	Providing and Fixing SS 304 Outdoor Dustbin(Pivoted Type and Macapacity all complete to the satisfaction of the Engineer in charge. (NON SOR Item)	ounted or	n SS Poles) o	f 55 liters
	Basic Rate		7500	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.14	Rate	7500.00	Nos.
70	Extra Lead for Disposing off unserviceable materials upto 10 Km beltem No 17.4 KSRRB M100-4.1-Earth	eyond ini	tial Lead of 5	km
	Earth	2.0x1	.28x10km	
	Baisc rate		25.60	
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)		57.00	
	Sub Total		82.60	
	Add 10% For area weightage (Mangalore City)		8.26	
		Rate	90.86	Cum
71	Extra Lead for Disposing off unserviceable materials upto 10 Km beltem No 17.4 KSRRB M100-4.1-Debris			km
	Debris	2.0x1	.30x10Km	
	Baisc rate		26.00	
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)		57.00	
	Sub Total	_	83.00	
	Add 10% For area weightage (Mangalore City)		8.3	
		Rate	91.30	Cum

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

Name of the Work :- Mangalore Smart City
3.2.1 BOQ of Electrical lighting Works for DPR-3 Roads

Sr.No.	3.2.1 BOQ of Electrical lighting				Amount	Domarka
	Specification	Unit	Quantity	Rate	Amount	Remarks
1.1	Lighting Poles  Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (RA attached)	Nos.	72	1,681	121,006	
1.2	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 (RA attached)	Nos.	64	4,057	259,648	
1.3	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 8 meter and upto 11 meter Existing poles (RA attached)	Nos.	0	4,807	-	
1.4	Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.	0	17,118	-	
1.5	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)	Nos.	124	12,420	1,540,080	

Sr.No.	Specification	Unit	Quantity	Rate	Amount	Remarks
1.6	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, icluding 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)	Nos.	60	7,398	443,880	
1.7	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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	6	3,540	21,240	
1.8	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.	239	2,400	573,600	
1.9	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	0	700	-	
1.1	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the poleabove 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	Nos.	64	620	39,680	
2.1	Out Door Box and Switch Gear  Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	No.	18	11,783	212,093	
2.2	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)	No.	18	1,547	27,846	
3	LT Cable Supplying of 1.1 kV LT cable having aluminium					
3.1	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	8713	117	1,019,363	

Sr.No.	Specification	Unit	Quantity	Rate	Amount	Remarks
3.2	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	3056	81.60	249,370	
3.3	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	1952	11.31	22,077	
3.4	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	1464	3.12	4,568	
4	Earthing system					
4.1	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	36	5,500.00	198,000	
4.2	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	7691	19.50	149,975	
			TOTA	AL	48,82,426	

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 3.2.2 M.S.of Electrical Lighting Works for DPR-3 Roads

Sr.No.	3.2.2 M.S.of Electrical Lighting Wor Specification	ks for I	OPR-3 F No.	Roads	В	Н	Quantity
<u>Sr.no.</u>	Specification Lighting Poles	Unit	NO.	<u> </u>	В	п	Quantity
<del>- '-</del>	Dismantling of pole/ street light standard/ strut embedded			<u> </u>			<u> </u>
	in cement concrete						
1.1	foundation etc. as required						
	(RA attached)						
	Pandeshwar road	Nos.	5				5.00
	Rosario road	Nos.	2				2.00
	Light house hill road	Nos.	25				25.00
	KMC Markra Trunk Road	Nos.	37 3				37.00
	Bunder road	Nos.	3		To	tal	3.00 <b>72.00</b>
					- 10	tai	12.00
	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						
4.0	including excavation and refilling etc. as required.						
1.2	Above 6.5 meter and upto 8.0 meter						
	Existing poles						
	(RA attached)						
				<u></u>			
	Pandeshwar road	Nos.	1				1.00
	Rosario road	Nos.	2				2.00
	Light house hill road	Nos.	21				21.00
	KMC Markra Trunk Road	Nos.	37				37.00
<u> </u>	Bunder road	Nos.	3		т.	tal	3.00
-					10	tal	64.00
	Erection of metallic pole of following length in cement			<u> </u>			
	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.						
1.3	Above 8 meter and upto 11 meter	Nos.					
	Existing poles						
	(RA attached)						
					То	tal	0.00
	Lighting Pole, 9 m						
	Fabrication, supply and erection of 9 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						
1 1	single joint welded as per IS 9595/IS 10178 AWG having						
1.4	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. 5.14.7)						
	3.113.3,						
							<u></u>
	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						
1.5	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						
1	galvanized in single dipping with not less than 65 micron						
		i		ĺ			
	as per ASTM - A123 and 153 etc., (excluding foundation)						
	as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended						
	as per ASTM - A123 and 153 etc., (excluding foundation)						
	as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended	Nos.	20				20.00

	Specification Rosario road	Unit	No.			Н	Quantity
		Nos.	40				40.00
	Light house hill road	Nos.	43				43.00
	KMC Markra Trunk Road	Nos.	13				13.00
	Mohmad Ali Road	Nos.	8				8.00
					То	tal	124
1.6	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, icluding 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)	Noo	10				10.00
	Rosario road	Nos.	10				10.00
	Bunder road	Nos.	50		Ta	tal	50.00 <b>60.00</b>
1.7	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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)				10		
	Pandeshwar road	Nos.	5				5.00
	Rosario road	Nos.	0				0.00
	Light house hill road	Nos.	1				1.00
	KMC Markra Trunk Road	Nos.	0				0.00
	Bunder road	Nos.	0		То	tal	0.00 <b>6.00</b>
1.8	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)						
	Pandeshwar road	Nos.	16				16.00
	Rosario road	Nos.	52				52.00
	Light house hill road	Nos.	63				63.00
	KMC Markra Trunk Road	Nos.	50				50.00
	Bunder road	Nos.	50				50.00
	Mohmad Ali Road	Nos.	8				8.00
					То	tal	239
1.9	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)						
	Total		·		То	tal	0
1.1	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the poleabove 5.5 mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)						
	Pandeshwar road	Nos.	1				1.00
	Rosario road	Nos.	2				2.00
	Light house hill road	Nos.	21				21.00
	KMC Markra Trunk Road	Nos.	37				37.00
	Bunder road	Nos.	3				3.00
	Total				То	tal	64
	Out Door Box and Switch Gears		·				
2				1	1	·-	1
	Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets		2				

Sr.No.	Specification	Unit	No.	L	В	Н	Quantity
	Rosario road	Nos.	1				1.00
	Light house hill road	Nos.	4				4.00
	KMC Markra Trunk Road	Nos.	1				1.00
	Bunder road	Nos.	9				9.00
	Mahmad Ali Road	Nos.	1				1.00
					To	tal	18
2.2	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)						
	Pandeshwar road	Nos.	2				2.00
	Rosario road	Nos.	1				1.00
	Light house hill road	Nos.	4				4.00
	KMC Markra Trunk Road	Nos.	1				1.00
	Bunder road	Nos.	9				9.00
	Mahmad Ali Road	Nos.	1				1.00
		. 100.	<u> </u>		To	tal	1.00
3	LT Cable						
3.1	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)						
	Rosario Road (Consider 25% more length for looping) - 895 meters	m	2	1119			2238
	Pandeshwar Road ( Double Arm ) (Consider 25% more length for looping)	m	2	400			800
	Bundar Road (Single Arm) (Consider 25% more length for looping)	m	2	1675			3350
	Light House Road (Single Arm) (Consider 25% more length for looping)	m	2	1063			2125
	Mohmad Ali Road	m	2	100			200
3.2	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)				10	tal	8713
	Pandeshwar road 7 mtr high pole	m	21	14			294.00
	Rosario road						_500
	7m high pole	m	42	14			588.00
	4mtr high pole	m	10	8			80.00
	Light house hill road		ĺ				
	7 mtr high pole	m	63	14			882.00
	KMC Markkra Trunk Road						
	7 mtr road	m	50	14			700.00
	Bunder Road						
	4mtr road	m	50	8			400.00
	Mohmad Ali Road						
	7 mtr high pole	m	8	14			112.00
					To	tal	3056
3.3	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)  Pandeshwar road		No.of Poles	No.of Lugs			
	7 mtr high pole	Nos.	21	8			168.00
	Rosario road	. 100.					. 50.00
	7m high pole	Nos.	42	8			336.00
	4mtr high pole	Nos.	10	8			80.00
	1 ······ ···· 3·· F ~· ~					ı	55.50

Sr.No.	Specification	Unit	No.	L	В	Н	Quantity
	Light house hill road						
	7 mtr high pole	Nos.	63	8			504.00
	KMC Markkra Trunk Road						
	7 mtr road	Nos.	50	8			400.00
	Bunder Road						
	4mtr road	Nos.	50	8			400.00
	Mohmad Ali Road						
	7 mtr high pole	Nos.	8	8			64.00
					10	tal	1952
	Supplying tinned copper lugs and crimping and wiring to						
3.4	terminal point for wire of following sizes 2.5 sq. mm copper conductor						
	(Ref Electrical SOR SI No.7.21.2)						
	Pandeshwar road						
	7 mtr high pole	Nos.	21	6			126.00
	Rosario road	1105.	21	0			120.00
	7m high pole	Nos.	42	6			252.00
	4mtr high pole	Nos.	10	6			60.00
	Light house hill road	1100.	10				00.00
	7 mtr high pole	Nos.	63	6			378.00
	KMC Markkra Trunk Road	1100.	- 00				070.00
	7 mtr road	Nos.	50	6			300.00
	Bunder Road		- 50				555.00
	4mtr road	Nos.	50	6			300.00
	Mohmad Ali Road						
	7 mtr road	Nos.	8	6			48.00
					To	tal	1464
	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						
4.1	toxic, weather resistance and capable of achieving ohmic						
	value						
	less than one ohm						
	(Ref Electrical SOR Pg.No.64,SI No.7.23.6)						
	Pandeshwar road	Nos.	2	2			4.00
	Rosario road	Nos.	1	2			2.00
	Light house hill road	Nos.	4	2			8.00
	KMC Markra Trunk Road	Nos.	1	2			2.00
	Bunder road	Nos.	9	2			18.00
	Mohmad Ali Road	Nos.	1	2			2.00
					To	tal	36
	Supply and running GI conductor for grounding and (along						
	with other wires in conduits system of wiring) using						
4.2	necessasary suitable size clamps, nails, guttas/spacers						
7.2	etc-8 SWG						
	(Ref Electrical SOR SI No.7.22.3)						
	Pagaria Paga (Capaidar 100/ mara largeth far lagging)	1				-	
а	Rosario Road (Consider 10% more length for looping) - 895 meters	m	2	985			1969.00
	Pandeshwar Road ( Double Arm ) (Consider 10% more						
b	length for looping) (Consider 10% more	m	2	352			704.00
	Bundar Road (Single Arm) (Consider 10% more length	1					
С	for looping)	m	2	1474			2948.00
	Light House Road ( Single Arm ) (Consider 10% more	1				1	
d	length for looping)	m	2	935			1870.00
f	Mahmod Ali Road	m	2	100			200.00
- 1	INIGHTIOU AII INOGU	m		100			200.00
					To	tal	7691
		1				1	
		1					

Assistant Engineer MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 3.2.4 Rate Analysis of Electrical Lighting for DPR-3 Roads

Sr. No.	Description	Unit	Qty.	Rate	Amount	Reference
1.1	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required					
	(CPWD RA- E & M 2016, item 12.42, pg 395)) Line man	day	0.33	486.2	160.45	PWD SOR 2018-19, LVIII, SI. No 38
	Khasasi	day	2.66	466.2	1240.09	PWD SOR 2018-19, LXIV, SI. No 148
	Total				1400.54	0
	Contracto's profit @10%				140.05	
	Contractor's over head @ 10%				140.05	
				Total =	1680.64	
1.2	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 (CPWD RA- E & M 2016, item 11.3.2, pg 372))					
	LABOUR					
	Mason, Grade 2	day	0.33	456.2	150.55	SI. No 13
	Lineman	day	0.33	486.2	160.45	PWD SOR 2018-19, LVIII, SI. No 38
	Khasasi	day	3.33	466.2	1552.45	PWD SOR 2018-19, LXIV, SI. No 148
	TOTAL				1863.45	
-	Contracto's profit @10%				186.35	
	Contractor's over head @ 10% TOTAL				186.35 <b>2236.15</b>	
	Excavation including refilling as required	cum	0.87	328.90	286.14	PWD SOR 2018-19, pg-6, SI. No 2.3
	Cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	cum	0.29	6279.9	1821.17	PWD SOR 2018-19, pg-13, SI. No 4.1
	Trontinal State)			Total =	4057.32	
	say				4057	
1.3	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 8 meter and upto 11 meter Existing poles (CPWD RA- E & M 2016, item 11.3.3, pg 373))					
	LABOUR					
	Mason, Grade 2	day	0.33	456.2	150.55	PWD SOR 2018-19, LVI, SI. No 13
	Lineman	day	0.33	486.2	160.45	PWD SOR 2018-19, LVIII, SI. No 38
	Khallasi	day	3.66	466.2	1706.29	PWD SOR 2018-19, LXIV, SI. No 148
	TOTAL	-			2017.29	
	Contracto's profit @10% Contractor's over head @ 10%	-			201.73	
	TOTAL	+			201.73 <b>2420.75</b>	
	Excavation including refilling as required	cum	1.06	328.90	348.634	PWD SOR 2018-19, pg-6, SI. No 2.3
	Cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)	cum	0.38	6279.9	2386.362	PWD SOR 2018-19, pg-13, SI. No 4.1
	TOTAL				4807.112	
	say				4807	

Assistant Engineer MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 3.2.3 Rate Analysis of Electrical Lighting for DPR-3 Roads

1.1	Lighting Poles							
1.1	Dismantling of pole/ street light standard/ str	ut embe	edded in ceme	ent concrete				
1.1	foundation etc. as required							
	(RA attached)							
	Basic Rate	Rate	1,681	Nos.				
	Erection of metallic pole of following length in cement concrete 1:3:6 (1							
1.2	cement: 3 coarse sand: 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.							
1.2	Above 6.5 meter and upto 8.0 meter							
	Existing poles							
	(RA attached)							
	(T. T. Cattor)	Rate	4,057	Nos.				
			1,001					
		•						
	Erection of metallic pole of following length i	n camai	nt concrete 1	·3·6 (1				
	cement : 3 coarse sand : 6 graded stone age							
1.3	foundation including excavation and refilling			iai 3i20)				
	Above 8 meter and upto 11 meter	010. 40	.oquii ou.					
	Existing poles							
	(RA attached)							
		Rate	4,807	Nos.				
	Lighting Pole, 9 m		l'a Calaasia	1				
	Fabrication, suppl and erection of 9 meters I							
	Octagonal pole with BSE 10025 grade S 355 for base plate with oor opening arrangement		•					
				aius,				
	·		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							
1 4			int welded as	per IS				
1.4	9595/IS 10178 AWG having dimensions bot	tom 155	oint welded as 5 mm dia, top	per IS 70 mm with				
1.4		tom 155 f lon	oint welded as 5 mm dia, top g J bolts along	per IS 70 mm with g with				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. o	tom 155 of lon nized in	oint welded as 5 mm dia, top g J bolts along single dipping	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended	tom 155 of lon nized in	oint welded as 5 mm dia, top g J bolts along single dipping	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and the pole shall be better than 65 micron as per ASTM - A123 and the better than 65 micron as per ASTM - A123 and the better than 65 micron as per ASTM - A123 and the bette	tom 155 of lon nized in	oint welded as 5 mm dia, top g J bolts along single dipping	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended	tom 155 of lon nized in	oint welded as 5 mm dia, top g J bolts along single dipping	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended	tom 155 of lon nized in	oint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate	tom 155 of lon nized in	oint welded as 5 mm dia, top g J bolts along single dippingtc., (excluding	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m	tom 155 f lon nized in d 153 e	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118	per IS 70 mm with g with g with not				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I	tom 155 If Ion nized in d 153 e	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118	per IS 70 mm with g with with not  Nos.				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 358	tom 155 If lon nized in d 153 e  Rate ong hot	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise eel plate for sh	per IS 70 mm with g with with not  Nos. ed aft, IS 2062				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 355 for base plate with oor opening arrangements	tom 155 If lon nized in d 153 e  Rate  ong hot JO ste t, icludir	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise sel plate for shing suitable boars	per IS 70 mm with g with g with not  Nos. ed aft, IS 2062 ards,				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 355 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifical	tom 155 If lon nized in d 153 e  Rate  ong hot JO ste t, icludir	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise eel plate for shing suitable for wind suitable for wi	per IS 70 mm with g with g with not  Nos.  ed eaft, IS 2062 ards, d speed of				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 358 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specificated 47 m/sec for 5 m pole in single section and section 10 minutes and 10 minutes are section and 10 minutes	tom 155 If lon nized in d 153 e  Rate  ong hot JO ste t, icludir ations su	oint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise eel plate for sha suitable for wind int welded as	per IS 70 mm with g with g with not  Nos.  ed ed eaft, IS 2062 erds, d speed of per IS				
1.4	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 358 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specificated 47 m/sec for 5 m pole in single section and s 9595/IS 10178 AWG having dimensions bot	tom 155 If lon nized in d 153 e  Rate  Ong hot 5 JO ste t, icludir tions su single jo tom 155	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise eel plate for shing suitable for wind sint welded as 5 mm dia, top	per IS 70 mm with g with g with not  Nos.  ed eaft, IS 2062 ards, d speed of per IS 70 mm with				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 358 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specificated 47 m/sec for 5 m pole in single section and section 10 minutes and 10 minutes are section and 10 minutes	tom 155 If lon nized in d 153 e  Rate  ong hot JO ste t, icludir titions su single jo tom 155 If lon	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17,118 17,118 dip Galvanise eel plate for shing suitable for wind sint welded as 5 mm dia, top g J bolts along	per IS 70 mm with g with with not  Nos.  ed eaft, IS 2062 erds, d speed of per IS 70 mm with g with				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 358 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifical 47 m/sec for 5 m pole in single section and 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of	tom 155 If lon nized in d 153 e Rate Ong hot JO ste t, icludir tions su single jo tom 155 If lon nized in	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise sel plate for shing suitable for wind single dipping J bolts along single dipping	per IS 70 mm with g with with not  Nos.  ed aft, IS 2062 ards, d speed of per IS 70 mm with g with g with				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 358 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifica 47 m/sec for 5 m pole in single section and 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar	tom 155 If lon nized in d 153 e Rate Ong hot JO ste t, icludir tions su single jo tom 155 If lon nized in	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise sel plate for shing suitable for wind single dipping J bolts along single dipping	per IS 70 mm with g with with not  Nos.  ed aft, IS 2062 ards, d speed of per IS 70 mm with g with g with				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 355 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifica 47 m/sec for 5 m pole in single section and 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 and	tom 155 If lon nized in d 153 e Rate Ong hot JO ste t, icludir tions su single jo tom 155 If lon nized in	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise sel plate for shing suitable for wind single dipping J bolts along single dipping	per IS 70 mm with g with with not  Nos.  ed aft, IS 2062 ards, d speed of per IS 70 mm with g with g with				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 355 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifica 47 m/sec for 5 m pole in single section and 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended	tom 155 If lon nized in d 153 e Rate Ong hot JO ste t, icludir tions su single jo tom 155 If lon nized in	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise sel plate for shing suitable for wind single dipping J bolts along single dipping	per IS 70 mm with g with with not  Nos.  ed aft, IS 2062 ards, d speed of per IS 70 mm with g with g with				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 356 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifica 47 m/sec for 5 m pole in single section and 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	tom 155 If lon nized in d 153 e Rate Ong hot JO ste t, icludir tions su single jo tom 155 If lon nized in	oint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17,118 17,118 dip Galvanise eel plate for shing suitable for wind single dipping tc., (excluding single dipping tc., (excluding 18, 18, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19	per IS 70 mm with g with with not  Nos.  ed aft, IS 2062 ards, d speed of per IS 70 mm with g with g with not				
	9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters I Octagonal pole with BSE 10025 grade S 355 for base plate with oor opening arrangement bakelite sheet and MCBs as per IS specifica 47 m/sec for 5 m pole in single section and 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of template and the pole shall be hot dip galvar less than 65 micron as per ASTM - A123 an foundation) as per drawing appended	tom 155 If lon nized in d 153 e Rate Ong hot JO ste t, icludir tions su single jo tom 155 If lon nized in	pint welded as 5 mm dia, top g J bolts along single dipping tc., (excluding 17118 17,118 dip Galvanise sel plate for shing suitable for wind single dipping J bolts along single dipping	per IS 70 mm with g with with not  Nos.  ed aft, IS 2062 ards, d speed of per IS 70 mm with g with g with not				

1.6	Lighting Pole, 4 m Fabrication, supply and erection of 4 meters Octagonal pole with BSE 10025 grade S 358 for base plate with door opening arrangement bakelite sheet and MCBs as per IS specificated 47 m/sec for 5 4 pole in single section and s 9595/IS 10178 AWG having dimensions bot 3 mm thick, suitable base plate and 4 nos. of and the pole shall be hot dip galvanized in si 65 micron as per ASTM - A123 and 153 etc. drawing appended (Ref Electrical SOR SI No.5.14.2)	5 JO ste nt, iclud itions su ingle joi tom 130 of long J ingle dip	el plate for shing suitable bout all the suitable for wind the welded as polymers are suited as polymers. The suite all the suit	aft, IS 2062 pards, d speed of per IS 70 mm with ith template less than		
	Basic rate		7398			
		Rate	7,398			
1.7	Supplying and fixing of hot dip Galvinized M. luminaries and mounted on Octagonal pole complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)		ecessary bolts	nuts, etc.		
	Basic rate		3540			
	Overal days and files of late 11 Collins	Rate	3,540			
1.8	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)					
	Basic rate		2400			
		Rate	2,400	Nos.		
1.9	Painting of Existing street light pole after scr with suitable colour enamel including coping above street light pole (Ref Electrical SOR SI No.16.28.3)					
	Basic rate		700			
		Rate	700	Nos.		
			the old paint a			
1.1	Painting of Existing street light pole after scr with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)		of the poleal	bove 5.5		
1.1	with suitable colour enamel including coping mtr to 7.5 mtr	/footing	of the poleal	bove 5.5		
1.1	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)		of the poleal	bove 5.5		
1.1	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)	/footing	of the poleal	bove 5.5		
	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)  Basic rate	Rate ing of ou	620 620 utdoor junction	Nos.		
2	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)  Basic rate  Oudoor Box and Switch Gear  Supply, installation, testing and commissionic	Rate ing of ou	620 620 620 utdoor junction	Nos.		
2	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)  Basic rate  Oudoor Box and Switch Gear Supply, installation, testing and commission mounting MCB/Contactors with all required a Price list (Considering 30% discount, 18% GST & 10% profit)  Supply and fixing of miniature circuit breaked necessasary fixing material and 'C' type curvorss-3 with short circuit breaking capacity of required confirming to IEC 60898 5- 32A TPN	Rate ing of outaccessor Rate r on existe, indice	620 620 620 atdoor junction ries and comparies and comparies and comparing board us ator ON/OFF, complete wiri	Nos.  Nos.  Nos.  Nos.  Nos.		
2 2.1	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)  Basic rate  Oudoor Box and Switch Gear Supply, installation, testing and commission mounting MCB/Contactors with all required a Price list (Considering 30% discount, 18% GST & 10% profit)  Supply and fixing of miniature circuit breaken necessasary fixing material and 'C' type curc cross-3 with short circuit breaking capacity of required confirming to IEC 60898	Rate Ing of outains	620 620 620 utdoor junction ries and comp 11,783 siting board us ator ON/OFF, complete wiri	Nos.  Nos.  Nos.  Nos.  Sing energy ng as		
2 2.1	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)  Basic rate  Oudoor Box and Switch Gear  Supply, installation, testing and commission mounting MCB/Contactors with all required a Price list (Considering 30% discount, 18% GST & 10% profit)  Supply and fixing of miniature circuit breaked necessasary fixing material and 'C' type curvorss-3 with short circuit breaking capacity of required confirming to IEC 60898 5- 32A TPN	Rate ing of outaccessor Rate r on existe, indice	620 620 620 utdoor junction ries and comp 11,783 siting board us ator ON/OFF, complete wiri	Nos.  Nos.  Nos.  Nos.  Nos.		
2 2.1	with suitable colour enamel including coping mtr to 7.5 mtr (Ref Electrical SOR SI No.16.28.2)  Basic rate  Oudoor Box and Switch Gear  Supply, installation, testing and commission mounting MCB/Contactors with all required a Price list (Considering 30% discount, 18% GST & 10% profit)  Supply and fixing of miniature circuit breaked necessasary fixing material and 'C' type curvorss-3 with short circuit breaking capacity of required confirming to IEC 60898 5- 32A TPN	Rate Ing of outains	620 620 620 utdoor junction ries and comp 11,783 siting board us ator ON/OFF, complete wiri	Nos.  Nos.  Nos.  Nos.  Sing energy ng as		

	Basic rate	Rate	11.31 <b>11.31</b>	
		Rate	11.31	Nos.
<u> </u>		Nate	11.31	1402.
	Supplying tinned copper lugs and crimping a	I and wirir	l ng to terminal	point for
3.4	Supplying tinned copper lugs and crimping a wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Chemical Earthing for grounding, conduits, IC other equipments on the mter board by using enhancing backfill compound which is non other mally, conductive, potential, to permissible capacity, non toxic, weather resistance and caless than one ohm (Ref Electrical SOR Pg.No.64, SI No.7.23.6)	Rate Cout out copper / corrosive,limits,	3.12 3.12 ts and /SS rod with elee superior,fault,	Nos. arth
	wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Chemical Earthing for grounding, conduits, IC other equipments on the mter board by using enhancing backfill compound which is non on, thermally, conductive, potential, to permissible capacity, non toxic, weather resistance and calless than one ohm (Ref Electrical SOR Pg.No.64, SI No.7.23.6)	Rate Cout out copper / corrosive,limits,	3.12 3.12 ts and /SS rod with ele superior,fault, of achieving of	Nos.  arth  conductive
	wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Chemical Earthing for grounding, conduits, IC other equipments on the mter board by using enhancing backfill compound which is none, thermally, conductive, potential, to permissible capacity, non toxic, weather resistance and calless than one ohm	Rate Cout out copper / corrosiv e,limits,	3.12 3.12 ts and /SS rod with e e superior,fault, of achieving of	Nos.  arth  conductive hmic value
	wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Chemical Earthing for grounding, conduits, IC other equipments on the mter board by using enhancing backfill compound which is non on, thermally, conductive, potential, to permissible capacity, non toxic, weather resistance and calless than one ohm (Ref Electrical SOR Pg.No.64, SI No.7.23.6)	Rate Cout out copper / corrosive,limits,	3.12 3.12 ts and /SS rod with ele superior,fault, of achieving of	Nos.  arth  conductive  hmic value
	wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Chemical Earthing for grounding, conduits, IC other equipments on the mter board by using enhancing backfill compound which is none, thermally, conductive, potential, to permissible capacity, non toxic, weather resistance and calless than one ohm (Ref Electrical SOR Pg.No.64, SI No.7.23.6)  Basic rate  Supply and running GI conductor for ground conduits system of wiring) using necessasing guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rate C cut out copper / corrosive, limits, apable of Rate ing and	3.12 3.12 ts and /SS rod with ele superior,fault, of achieving of 5500.00 5500.00 (along with otole size clamps	Nos.  arth conductive hmic value  Kit her wires in s, nails,
4.1	wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Chemical Earthing for grounding, conduits, IC other equipments on the mter board by using enhancing backfill compound which is none, thermally, conductive, potential, to permissible capacity, non toxic, weather resistance and caless than one ohm (Ref Electrical SOR Pg.No.64, SI No.7.23.6)  Basic rate  Supply and running GI conductor for ground conduits system of wiring) using necessasar guttas/spacers etc-8 SWG	Rate C cut out copper / corrosive, limits, apable of Rate ing and	3.12 3.12 ts and /SS rod with e e superior,fault, of achieving of 5500.00 5500.00 (along with ot	Nos.  arth conductive hmic value  Kit her wires in s, nails,

Assistant Engineer MSCL Mangaluru

# Name of the Work :- Manglore Smart City 3.1 BOQ OF SOFTSCAPE

Sr.No.	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.1	SOIL MIXES and Ground Preparation					
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment).  (Non SOR Item)		170.99	140.00	23,939	
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(KSRRB 18-19,Page No.150,SI.No.19.90)	Cum	84.23	224.40	18,900	
1.1.3	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KSRRB 18-19,Page No.148,SI No.19.77)		255.23	113.30	28,918	
1.1.4	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	255.23	23.91	6,103	
1.1.5	Soil preparation of Lawn					
	KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 18-19,Pg No. 148, SI No. 19.80)	Sqm	206.44	17.60	3,633	
1.2.1	TURF  ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	382.19	156.80	59,927	

Sr.No.	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.2	IRRIGATION					
1.2.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	382.19	560.00	214,024	
			Total		3,55,444	

SOR Base Item Total= 51,451

GST @ 12 % = 6,174.00

Executive Engineer MSCL Mangaluru

# Name of the Work :- Manglore Smart City 3.2 Measurement Sheet of softscape

Sr.No.	Item	Unit	No.	L	В	Н	Qty.
1.1	SOIL MIXES and Ground Preparation						
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment).  (Non SOR Item)						
	Island at Ch.350.0	Cum	0.67	66.50	Area	0.60	26.73
	Island at Ch.380.0	Cum	0.67	34.46	Area	0.60	13.85
	Pandeshwar Road Extended Median	Cuiii	0.07	34.40	Alca	0.00	13.03
	Ch.147.00 to Ch.183.00	Cum	0.67	36.00	0.60	0.60	8.68
	Ch.187.0 to Ch.190.00	Cum	0.67	36.00	0.60	0.60	8.68
	Median Ch.380.0 to 530.0	Cum	0.67	150.00	0.60	0.60	36.18
	KMC Merkera Road Median	Cum	0.67	112.00	Area	0.60	45.02
	Roundabout	Cum	0.67	8.16	2.60	0.60	8.53
	Ch.150	Cum	0.67	29.00	2.00	0.60	23.32
	Consider 2/3rd Qty of Item No.1.1.7	Cum	0.07	20.00	2.00	0.00	170.99
	Consider 2/ord Gry or Rein 140.1.1.7	Juin					170.55
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(KSRRB 18-19,Page No.150,SI.No.19.90)						
	laland at Ch 250.0	Cum	0.33	66.5	۸۳۵۵	0.6	13.17
	Island at Ch.350.0 Island at Ch.380.0	Cum Cum	0.33	34.46	Area Area	0.6	6.82
	Pandeshwar Road Extended Median	Cuiii	0.55	34.40	Alea	0.0	0.02
	Ch.147.00 to Ch.183.00	Cum	0.33	36	0.6	0.6	4.28
	Ch.187.0 to Ch.190.00	Cum	0.33	36	0.6	0.6	4.28
	Median Ch.380.0 to 530.0	Cum	0.33	150	0.6	0.6	17.82
	KMC Merkera Road Median	Cum	0.33	112	Area	0.6	22.18
	Roundabout	Cum	0.33	8.164	2.6	0.6	4.20
	Ch.150	Cum	0.33	29	2	0.6	11.48
	Consider 1/3rd Qty of Item No.1.1.7	Cum					84.23
1.1.3	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KSRRB 18-19,Page No.148,SI No.19.77)						
	Island at Ch.350.0	Cum	1	66.5	Area	0.6	39.90
	Island at Ch.380.0	Cum	1	34.46	Area	0.6	20.68
	Pandeshwar Road Extended Median						4
	Ch.147.00 to Ch.183.00	Cum	1	36	0.6	0.6	12.96

Sr.No.	Item	Unit	No.	L	В	н	Qty.
	Ch.187.0 to Ch.190.00	Cum	1	36	0.6	0.6	12.96
	Median Ch.380.0 to 530.0	Cum	1	150	0.6	0.6	54.00
	KMC Merkera Road Median	Cum	1	112	Area	0.6	67.20
	Roundabout	Cum	1	8.164	2.6	0.6	12.74
	Ch.150	Cum	1	29	2	0.6	34.80
						Total	255.23
	Mixing earth and sludge or manure in the						
1.1.4	required proportion specified or directed by the Officer-in-charge (Non SOR item)						
	Consider Same Qty. of 1.1.7	Cum					255.23
1.1.5	Soil preparation of Lawn						
1.1.5	KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of						
	rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including						
	supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per						
	specifications.						
	MORTH Specification No.307						
	(KSRRB 18-19,Pg No. 148, SI No. 19.80)						
	In rows 5 cm apart in both directions						
	Ch.350.0	Sqm	2	66.50		0.15	19.95
	Ch.380.0	Sqm	2	34.46		0.15	10.34
	Pandeshwar Road Extended Median	-					
	Ch.147.00 to Ch.183.00	Sqm	2	36		0.6	43.20
	Ch.187.0 to Ch.190.00	Sqm	2	36		0.6	43.20
	Median Ch.380.0 to 530.0	Sqm	2	150.00		0.15	45.00
	KMC Merkera Road Median	Sqm	2	112.00		0.15	33.60
	Roundabout	Sqm	2	8.16		0.15	2.45
	Ch.150	Sqm	2	29.00		0.15 <b>Total</b>	8.70 <b>206.44</b>
						TOtal	200.44
	ZOVSIA IAPONICA (MAT)						
1.1.6	ZOYSIA JAPONICA ( MAT) (Non SOR Item)						
	Island at Ch.350.0	Sqm	1	66.5	Area		66.50
	Island at Ch.380.0	Sqm	11	34.46	Area		34.46
	Median Ch.380.0 to 530.0	Sqm	1	150	0.6		90.00
	KMC Merkera Road Median	Sqm	1	112	Area		112.00
	Roundabout	Sqm	1	8.164	2.6		21.23
	Ch.150	Sqm	1	29	2		58.00
						Total	382.19

Sr.No.	Item	Unit	No.	L	В	Н	Qty.
1.2	IRRIGATION						
1.2.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Consider Same Qty. of 1.1.6) (Non SOR Item)						
	Island at Ch.350.0	Sqm	1	66.5	Area		66.50
	Island at Ch.380.0	Sqm	1	34.46	Area		34.46
	Median Ch.380.0 to 530.0	Sqm	1	150	0.6		90.00
	KMC Merkera Road Median	Sqm	1	112	Area		112.00
	Roundabout	Sqm	1	8.164	2.6		21.23
	Ch.150	Sqm	1	29	2		58.00
						Total	382.19

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

# Name of the Work :- Manglore Smart City 3.3 Rate Analysis of SOFTSCAPE

### RATE ANALYSIS - SOFTSCAPE

	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be							
1.1.1	reduced by 20% for payment). (Non SOR Item)							
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27	Rate	140.00	Cum				
	mangaroro, itoroi o mitoro.							
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications MORTH Specification No. 308.2(KSRRB 18-19,Page No.150,SI.No.19.90)							
	Basic rate		204					
	Add 10% For area weightage	Doto	20.4					
		Rate	224.40	Cum				
1.1.3	KSRRB M300-Horticulture KSRRB M300-yard manure or/ and good earth KSRRB M300-farm yard manure or/ and good earth in r sludge, farm yard manure or/and good earth complete as per specifications. MORTH Spec (KSRRB 18-19, Page No.148, SI No.19.77)	300-1. S equired h to be	Spreading I thicknes paid for s on No. 30	g of sludge ss (cost of separately) 7				
	Basic rate		103					
	Add 10% For area wightage		10.3					
		Rate	113.30					
1.1.4	Mixing earth and sludge or manure in the re or directed by the Officer-in-charge (Non SOR item)	equired	proportio	n specified				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	Rate	23.91	Cum				
1.1.5	KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sgm complete as per							
	Basic rate		16					
	Add 10% For area wightage		1.6					
		Rate	17.60	Sqm				

1.2	TURF							
1.2.1	ZOYSIA JAPONICA ( MAT) (Non SOR Item)							
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.32 Rate 156.80 Sqm							
1.2	IRRIGATION							
1.2.1	supply and fixing of irrigation lines such the plants are adequately watered; by means subsurface for shrubs and lawn areas / complete sprinklers for lawn areas. (Equipment make All material used should be comply to BS value and pump required for complete complete complete some (Non SOR Item)	of drip ground - Rainb SI code	irrigation covers a ird or equ . All the	for trees , nd pop up uivalent) necessary				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.34	Rate	560.00	Sqm				

Assistant Engineer MSCL Mangaluru

**Executive Engineer MSCL Mangaluru** 

#### **Manglore Smart City**

#### 4.0 Rate Analysis for Kerb Stone 900 mm High

Sr.No.	Description	Unit	Qty	Rate/Unit	Amount	Remarks
1	Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).					
	Kerb Dimension= Top Width=0.25m, Bottom Width=0.3 m, Height =0.9 m Details of cost 100 metre i.e. No. of kerb stones = 100/0.405=247 Nos. width of kerb stone =0.4m Precast C.C. Kerb stone M - 20 = 247x(((0.25+0.3)/2)*0.6+0.3*0.3))*0.405=25.5c um					
	Material					
	Precast C.C. Kerb stone M - 20	Cum	25.500	14381.53	366729.05	Rate attached
	Shuttering Work					
	Mortar 1:3 for fixing joints = 246x1x [((0.250+0.30)/2)*0.60*0.005] + (0.30x0.30x0.005) = 0.313cum. Cement mortar 1:3 (1 cement : 3 coarse sand)	Cum	0.300	5666.00	1699.80	KSRB 18- 19,SI No 1.3 Pg No 2
	Mason (brick layer) 1st class	day	2.500	466.20	1165.50	KSRB 18-
	Mason (brick layer) 2nd class	day	2.500	456.20	1140.50	19
	Beldar	day	2.500	446.20	1115.50	Pg No LVI
	Coolie	day	1.650	446.20	736.23	1 g NO EVI
	Total				372586.58	
	Add 1 % Water charges				3725.87	
					376312.45	
	Add 10 % Contractor's profit				37631.24	
	Add 10% Contractor Overhead				37631.24	
	Cost of 25.5 cum				451574.93	
	cost for 1 cum.				17708.82	Α
	Cost per Kerb of width 0.405m =A X 0.102cum (Vol of one Kerb)				1806	Per No

#### Name of the Work :- Mangalore Smart City 5.0 Rate Analysis of Pre Cast RCC Square Cover

Sr. No.	DESCRIPTION	Unit	No.	Qty	Rate	Amount
1	Rectangular shape 600x450 mm precast R.C.C. manhole cover with frame(CPWD 2016,Material rate-7130,Pg.No.35)	Nos.	1.00		700.00	700
	Transportation @ 1%	Nos.	1.00			7
	Fixing Charges @10%	Nos.	1.00			70
	Contractor Profit@10%	Nos.	1.00			70
	Contractor Overhead @10%	Nos.	1.00			70
	Sub Total	•	1			917
	Total					917

Executive Engineer MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 5.1 Rate Analysis of Dry Lean Concrete - Footpath

Description	Unit	Quantity	Rate Rs	Cost Rs	Remarks/ Input ref.
Dry Lean Cement Concrete Sub- base					•
KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)					
Unit = cum					
Taking output = 450 cum (990 tonne)					
a) Labour					SI.No.12,Pa
Mate	day	1.120	466.20	522.14	ge No.LVI,
Mazdoor skilled	day	6.000	446.20	2677.20	SI.No.6,Pag e No.LVI,
Mazdoor	day	22.000	446.20	9816.40	SI.No.6,Pag e No.LVI,
b) Machinery					
Front end loader 1 cum bucket capacity	hour	6.000	593.00	3558.00	SI.No.26,Pa ge No.XLIX
Cement concrete batch mix plant @ 75 cum per hour	hour	6.000	1525.00	9150.00	SI.No.104,P age No.LII
Electric generator 100 KVA	hour	6.000	534.00	3204.00	SI.No.92,Pa ge No.LI
Plate Vibrator Having 3 Ton compaction Force	Day	1.000	254.00	254.00	SI.No.65,Pa ge No.L
Water tanker 6 KL capacity	hour	8.000	550.00	4400.00	
Tipper	tonne .km	990 x L	4.00	39600.00	
Add 10 per cent of cost of carriage to cover cost of loading and unloading				3960.00	
c) Material					_
Crushed stone coarse aggregate of 25 mm and 12.5 mm nominal sizes graded as per table 600-1 @ 0.90 cum/cum of concrete conforming to clause 602.2.4.	cum	405.000	1460.00	591300.00	Page No.II,SI.No.2 7
Coarse Sand as per IS: 383 @ 0.45 cum/cum of concrete	cum	203.000	1700.00	345100.00	Page No.II,SI.No.5 1
Cement @ 160 kg/cum of concrete	tonne	72.000	4906.00	353232.00	Page No.V,SI.No.1 23

	Description	Unit	Quantity	Rate Rs	Cost Rs	Remarks/ Input ref.
	Cost of water	KL	48.000	40.00	1920.00	Page No.XXIX,SI. No.745
	d) Overhead charges @ 10 % on (a+b+c)				136869.37	
	e) Contractor's profit @ 10 % on (a+b+c+d)				150556.31	
	Cost for 450 cum = a+b+c+d+e				1656119.43	
	Rate per cum = (a+b+c+d+e)/450				3680.27	
				say	3680.00	
Note	Quantity provided for aggregate is for estimating purpose. Exact quantity shall be as per mix design.					

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#### Name of the Work :- Mangalore Smart City 6.0 Rate Analysis of taking out paver block

Sr.No.	Description	Unit	Quantity	Rate	Amount	Reference	
1	Taking out existing CC interlocking paver blocks from footpath/ central verge including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.						
	Details of cost for	r 10 sqm.					
а	Labour						
b	Beldar	Day	0.25	446.20	111.55	KPWD 18-19 SOR, Pg No.LVI SI No.5	
С	Collie	Day	1	446.20	446.2	KPWD18-19 SOR, Pg No.LVI,SI No.6	
d	Sundries	LS	2.7	1.73	4.67	CPWD Pg No 29,	
	Total				562.42	-	
е	Add 1% Water C	harges			5.62		
	Total				568.04		
f	Add 10 % Contractor's profit		it		56.8		
g	Add 10 % Contra	ctor's ove	rheads		56.804		
	Cost of 10 sqm				681.644		
	Cost of 1 sqm				68.16		

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#### Name of the Work :- Mangalore Smart City

#### 7.0 Comparitive Statement For Power Ducts

1	Providing and laying Dia 225mm HDPE Electrical pipe Conduits with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.	Dura Line	Aadarsha	Utkarsha
	Basic Cost per RM	2500	2250	2875
	GST 18%		405	
	Total Cost per RM	2500	2655	2875

Providing and HDPE Coupler for pipe Dia 225mm(O.D.) and conveying to work site including loading and unloading at both destination and lowering, Jointing into trenches, Complete.	Dura Line	in nine	Utkarsha ( Not Quoted)
Basic Cost per Nos.	1175	0	0
GST 18%		0	
Total Cost per Nos.	1175	0	0

3	Providing and laying Dia 160mm HDPE Electrical pipe Conduits with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.	Dura Line	Aadarsha	Utkarsha
	Basic Cost per RM	1350	1135	1550
	GST 18%		204.3	
	Total Cost per RM	1350	1339.3	1550

4	Supplying HDPE pipe Coupler for Dia 160mm(O.D.) and conveying to work site including loading and unloading at both destination and rolling, lowering into trenches, laying true to line and jointing of pipe and special including encasing the pipe Complete.	Duralina	(Including	Utkarsha ( Not Quoted)
	Basic Cost per Nos.	1475	0	0
	GST 18%		0	
	Total Cost per Nos.	1475	0	0

5	Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material2Rows in One Column		Aadarsha (Not Quoted)	Utkarsha
	Basic Cost per Nos.	1003	0	1150
	GST 18%		0	
	Total Cost per Nos.	1003	0	1150

6	Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material4 Rows in One Column		Aadarsha (Not Quoted)	Utkarsha
	Basic Cost per Nos.	1947	0	2150
	GST 18%		0	
	Total Cost per Nos.	1947	0	2150

7 Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.	Dura Line	Aadarsha	Utkarsha
Basic Cost per Nos.	685	745	750
GST 18%		134.1	
Total Cost per Nos.	685	879.1	750

8	Supplying Coupler for 7-way 40mmHDPE pipe With Multi-way Duct and conveying to work site including loading and unloading at both destination and lowering into trenches, and jointing of pipe.Complete.		Aadarsha	Utkarsha
	Basic Cost per Nos.	175	0	0
	GST 18%		0	
	Total Cost per Nos.	175	0	0

Executive Engineer MSCL Mangaluru

8.0 Summary for Maintenance				
Sr.No.	description	Total Amount Rs.		
1	2nd year Maintenance	3,720,646.00		
2	3rd year Maintenance	3,863,378.00		
3	4th year Maintenance	5,124,290.00		
	Total Maintenance Amount	12,708,314.00		
	GST @12% for Maintenance Period on SOR Base Items	1,212,260.00		
	GST @18% for Maintenance Period on Market Base Items	230,869.00		
	Total	14,151,443.00		

Note: Maintenance cost is approved by KUIDFC

EXECUTIVE ENGINEER MSCL MANGALURU

GENERAL MANAGER TECHNICAL MSCL MANGALURU

### Name of the Work :- Mangalore Smart City 8.1.0 Abstract for Maintenance of Road and Other Work for DPR 3-1st Year

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
	2.11.11		_		
1.00	Civil Works  Maintenance for 1st Year:  Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	Sqm	80.00	77.98	6,238
2.00	Maintenance for 1st Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)	Cum	3.68	1028.46	3,785
3.00	Maintenance for 1st Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	25.00	13.73	343
4.00	Maintenance for 1st Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	10.00	446.16	4,462
5.00	Maintenance for 1st Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)		0.35	401.54	141
6.00	Maintenance for 1st Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,SI No: 19.14)	Cum	137.50	46.90	6,449
7.00	Maintenance for 1st Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)	Cum	137.50	137.28	18,876
8.00	Maintenance for 1st Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sqm	200.00	6.86	1,372

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
9.00	Maintenance for 1st Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	5.00	6749.60	33,748
10.00	Maintenance for 1st Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	150.00	2477.90	3,71,685
11.00	Maintenance for 1st Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No : 4.10)	Cum	36.00	7090.51	2,55,258
12.00	Maintenance for 1st Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)	Sqm	360.00	300.87	108,313
13.00	Maintenance for 1st Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3. do with TMT bars Fe500	MT	2.88	80974.61	2,33,207
14.00	Maintenance for 1st Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	36.75	643.19	23,637
15.00	Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	7.35	4630.91	34,037

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
16.00	Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	8.00	4209.92	33,679
17.00	Maintenance for 1st Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	16.91	6595.16	1,11,524
18.00	Maintenance for 1st Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	50.00	119.60	5,980
19.00	Maintenance for 1st Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	50.00	378.66	18,933
20.00	Maintenance for 1st Year:  Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).  (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	1.55	18417.17	28,547
21.00	Maintenance for 1st Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1.95	481.62	,939
22.00	Maintenance for 1st Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,Sl No : 5.3)	Cum	0.83	481.62	,400

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
23.00	Maintenance for 1st Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	m	100.00	112.11	11,211
24.00	Maintenance for 1st Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	11.55	91.52	1057
25.00	Maintenance for 1st Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	3.00	953.68	2,861
26.00	Maintenance for 1st Year: Providing and Fixing Recessed Inception chamber cover - size: (600 x 450)mm Material	Nos.	10.00	3640.00	36,400
27.00	Maintenance for 1st Year:  Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line.The rate shall include all jointing materials,testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016-17)	Rmt	10.00	314.52	3,145
28.00	Maintenance for 1st Year: KSRB 11-18-17.1: 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. ( PWD SR 2015-16,P.No.86, SI.No.12.89)	Nos.	10.00	949.52	9,495
29.00	Maintenance for 1st Year: KSRRB M800-29.3.Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case-III: Triple row for three utility services. ( PWD SR 2015-16,SI.No.24.36)	Rmt	4.00	5745.17	22,981
30.00	Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.  (Market Rate)	Rmt	150.00	2052.29	3,07,844
31.00	Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)	Rmt	200.00	1113.03	2,22,606
32.00	Maintenance for 1st Year:  Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  (Market rate)	Nos.	20.00	1043.12	20,862
33.00	Maintenance for 1st Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	20.00	2024.88	40,498

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
34.00	Maintenance for 1st Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	40.00	754.33	30,173
35.00	Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.6)		80.00	1208.06	96,645
36.00	Maintenance for 1st Year: 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 30mm 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. (Non SOR Item)	Sqm	1.50	948.48	1,423
37.00	Maintenance for 1st Year: Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.7)		30.00	1274.42	38,233
38.00	Maintenance for 1st Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	12.00	8967.82	107,614
39.00	Maintenance for 1st Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	3.20	10022.58	32,072
40.00	Maintenance for 1st Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	10.00	330.62	3,306

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
41.00	Maintenance for 1st Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	30.00	490.78	,14,723
42.00	Maintenance for 1st Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	5.00	63648.00	3,18,240
43.00	Maintenance for 1st Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00	4680.00	4,680
44.00	Maintenance for 1st Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars (shop drawing to be approved), with vertical support of 0.9m @2.2mc/c, all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	0.30	104000.00	31,200
45.00	Maintenance for 1st Year: Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Cum	943.74	186.16	175,687
46.00	Maintenance for 1st Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	58.53	94.49	5,530
47.00	Maintenance for 1st Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Debris	Cum	9.38	94.95	,891
48.00	Electrical Works  Maintenance for 1st Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1.00	1747.87	1,748
49.00	Maintenance for 1st Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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	Nos.	0.00	17802.72	,0
50.00	Maintenance for 1st Year: 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)	Nos.	1.00	12916.80	12,917

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
51.00	Maintenance for 1st Year: 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, icluding 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)	Nos.	1.00	7693.92	7,694
52.00	Maintenance for 1st Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1.00	3681.60	3,682
53.00	Maintenance for 1st Year: 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.	1.00	2496.00	2,496
54.00	Maintenance for 1st Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00	644.80	118,643
55.00	Maintenance for 1st Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00	12254.24	12,254
56.00	Maintenance for 1st Year: 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.	1.00	1608.88	1,609
57.00	LT Cable  Maintenance for 1st Year: 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	60.00	121.68	7,301
58.00	Maintenance for 1st Year: 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	10.00	84.86	849
59.00	Maintenance for 1st Year: 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	10.00	11.76	118
60.00	Maintenance for 1st Year: 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)  Earthing system	Nos	8.00	3.24	26

Sr. No.	Specification	Unit	Total Qty.	Rate	Amount
61.00	Maintenance for 1st Year: 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	1.00	5720.00	5,720
62.00	Maintenance for 1st Year: 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	50.00	20.28	1014
	Landcaping Works SOIL MIXES and Ground Preparation				
63.00	Maintenance for 1st Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	0.84	145.60	122
64.00	Maintenance for 1st Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	0.41	233.38	96
65.00	Maintenance for 1st Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)		0.40	117.83	47
66.00	Maintenance for 1st Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	0.40	24.87	10
67.00	Soil preparation of Lawn  Maintenance for 2nd Year: Maintenance of lawns or Turfing of slopes (rough grassing) for a period of one year including watering etc complete including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.		382.19	117.83	45,033
	TURF				
68.00	Maintenance for 1st Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	3.00	163.07	,489
69.00	IRRIGATION  Maintenance for 1st Year:  Watering with tanker to landscape area and plants for one year	Year	1.00	31085.11	31,085
70.00	Maintenance for 1st Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	3.00	582.40	1,747
				Total	30,95,630

Executive Engineer MSCL Mangaluru

### Name of the Work :- Mangalore Smart City 8.1.1 M.S. For Maintenance of Road and Other Work for DPR 3-1st Year

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
	Civil Works						
1.00	Maintenance for 1st Year: Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	Sqm	1	40	2		80.00
2.00	Maintenance for 1st Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)	Cum	1	3.5	3.5	0.3	3.68
3.00	Maintenance for 1st Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200- 26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	1	25			25.00
4.00	Maintenance for 1st Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	1	20	1	0.5	10.00
5.00	Maintenance for 1st Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No: 18.23)	Cum	1	3	0.5	0.23	0.35
6.00	Maintenance for 1st Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,SI No : 19.14)	Cum	1.00	55	5	0.5	137.50
7.00	Maintenance for 1st Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)	Cum	1.00	55	5	0.5	137.50
8.00	Maintenance for 1st Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sqm	1.00	40		5	200.00
9.00	Maintenance for 1st Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	1.00	10	5	0.1	5.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
10.00	Maintenance for 1st Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	1.00	200	5	0.15	150.00
11.00	Maintenance for 1st Year: KSRB 4.2.1 : Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No : 4.10)	Cum	1.00	200	0.2	0.9	36.00
12.00	Maintenance for 1st Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)		2.00	200		0.9	360.00
13.00	Maintenance for 1st Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3.		1.00	2.88			2.88
14.00	Maintenance for 1st Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	6.00	3.5	3.5	0.5	36.75
15.00	Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	6.00	3.5	3.5	0.1	7.35
16.00	Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	1.00	40	2	0.1	8.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
17.00	Maintenance for 1st Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	6.00	3.5	3.5	0.23	16.91
18.00	Maintenance for 1st Year:  Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	1.00	50			50.00
19.00	Maintenance for 1st Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	1.00	50			50.00
20.00	Maintenance for 1st Year:  Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-incharge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge). (RA Attached)	Cum	1	15	0.103		1.55
21.00	Maintenance for 1st Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.0279		1.95
22.00	Maintenance for 1st Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.0118		0.83
23.00	Maintenance for 1st Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-incharge.	Rmt	100				100.00
24.00	Maintenance for 1st Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	1	70	0.165		11.55
25.00	Maintenance for 1st Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	3.00				3.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
26.00	Maintenance for 1st Year: Providing and Fixing Recessed Inception chamber cover - size: (600 x 450 )mm Material	Nos.	10.00				10.00
27.00	Maintenance for 1st Year: Providing gully pipe lowering, laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	Rmt	1.00	10.00			10.00
28.00	Maintenance for 1st Year: KSRB 11-18-17.1: 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. (PWD SR 2015-16,P.No.86, SI.No.12.89)	Nos.	1.00	10			10.00
29.00	Maintenance for 1st Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	1	4.00			4.00
30.00	Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)	Rmt	1	150			150.00
31.00	Maintenance for 1st Year: Providing and HDPE Coupler for pipe Dia 225mm(O.D.) and conveying to work site including loading and unloading at both destination and lowering, Jointing into trenches, Complete. (Market Rate)		10				10.00
32.00	Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	1	200			200.00
33.00	Maintenance for 1st Year:  Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  (Market rate)		20				20.00
34.00	Maintenance for 1st Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)		20				20.00
35.00	Maintenance for 1st Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	1	40			40.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
36.00	Maintenance for 1st Year: Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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. (Page No 101,SI No: 14.6)	Sqm	1	40	2		80.00
37.00	Maintenance for 1st Year: 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 30mm 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.  (Non SOR Item)	Sqm	1.00	5	0.3		1.50
38.00	Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.7)	Sqm	1.00	20	1.5		30.00
39.00	Maintenance for 1st Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	4.00	2.5	8	0.15	12.00
40.00	Maintenance for 1st Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	4.00	2.5	8	0.04	3.20
41.00	Maintenance for 1st Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	10.00				10.00
42.00	Maintenance for 1st Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	1.00	200	0.15		30.00
43.00	Maintenance for 1st Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	5.00				5.00
44.00	Maintenance for 1st Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00				1.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
45.00	Maintenance for 1st Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	1.00	0.3			0.30
46.00	Maintenance for 1st Year:  Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Cum	2.00	6741	0.7	0.1	943.74
47.00	Maintenance for 1st Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	1.00	58.53			58.53
48.00	Maintenance for 1st Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead  Item No 17.4 KSRRB M100-4.1-Debris	Cum	1.00	9.38			9.38
49.00	Electrical Works  Maintenance for 1st Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1				1.00
50.00	Maintenance for 1st Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.					0.00
51.00	Maintenance for 1st Year: 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)	Nos.	1				1.00
52.00	Maintenance for 1st Year: 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, icluding 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)	Nos.	1				1.00
53.00	Maintenance for 1st Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1				1.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
54.00	Maintenance for 1st Year: 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.	1				1.00
55.00	Maintenance for 1st Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole 8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00				184.00
56.00	Maintenance for 1st Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and components	Nos.	1.00				1.00
57.00	Maintenance for 1st Year: 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.	1.00				1.00
	LT Cable						
58.00	Maintenance for 1st Year: 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	1	60.00			60.00
59.00	Maintenance for 1st Year: 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	1	10.00			10.00
60.00	Maintenance for 1st Year: 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				10.00
61.00	Maintenance for 1st Year: 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				8.00
62.00	Earthing system  Maintenance for 1st Year: 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	1				1.00
63.00	Maintenance for 1st Year: 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	1	50			50.00
	Landcaping Works SOIL MIXES and Ground Preparation						
64.00	Maintenance for 1st Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)		1	10	0.558	0.15	0.84
65.00	Maintenance for 1st Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	1	10	0.412	0.1	0.41

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
66.00	Maintenance for 1st Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)		1	10	0.404	0.1	0.40
67.00	Maintenance for 1st Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	1	10	0.404	0.1	0.40
	Soil preparation of Lawn						
68.00	Maintenance for 2nd Year: Maintenance of lawns or Turfing of slopes (rough grassing) for a period of one year including watering etc complete including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.		1.00	382.19			382.19
	TURF						
69.00	(Non SOR Item)	Sqm	1	5	0.6		3.00
	IRRIGATION						
70.00	Maintenance for 1st Year: Watering with tanker to landscape area and plants for one year						
71.00	Maintenance for 1st Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	1	5	0.6		3.00

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

### Name of the Work :- Mangalore Smart City 8.1.2 R.A. For Maintenance of 1st Year- DPR 3

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4 wher servi	NDD MOOO 40.4 Diamagatling of avaiating atminatures like			
4 wher servi Cond	RB M200-13.1. Dismantling of existing structures like	culverts, br	idges, retaining	walls and other
servi Cond	cture comprising of masonry, cement concrete, wood wor	k, steel wo	k, including T&P	and scaffoldin
servi Cond	rever necessary, sorting the dismantled material, disposa	l of unservi	ceable material a	and stacking th
Cond	iceable material with all lifts complete as per specification			-
	crete Grade M-15 &M-20. MORTH Specification No. 202 (Kl			
	crete Grade IVI-13 &IVI-20. IVIOIX 111 Specification No. 202 (IXI	FWD 30K	0-17,10.20,Faye	140.137)
· ·		1		
	c rate		390	
	ntenance -1st year escalation of 4%		15.6	
Add	10% For area weightage (Mangalore City)		40.56	
	<u> </u>	Rate	446.16	Cum
				_ <del></del>
NA = :	stonance for 1st Voors			I .
	ntenance for 1st Year:			
	RB M200-12.1. Dismantling of existing structures like			
struc	cture comprising of masonary, cement concrete, woodwor	k, steel wo	rk, including T&P	and scaffoldin
5 wher	rever necessary, sorting the dismantled material, disposa	l of unservi	ceable material a	and stacking th
	iceable material with all lifts complete as per specifications.			<b>3</b> ·
	mantaling Brick/Tile work B.In Cement mortar			
	ge No 137,SI No : 18.23)			
Basi	,			
Main	c rate		351	
IIVIAIII	ic rate			
	c rate ntenance -1st year escalation of 4%		14.04	
	ic rate	Rate		

	Maintenance for 1st Year:			
	KSRRB M300-14. Excavation for roadwork in all types of soil with	n hydraulid	c excavator of 0.9	bucket capacity
	including cutting and loading in tippers, trimming bottom and side	slopes,in	accordance with	requirements of
6	lines and grades and cross sections, and transporting disposal loc	cation up	to a lead of 1.00K	m and complete
	as per specifications.			
	MORTH specification No.301(Including transporting charges, loadi	ing and ur	nloading for lead 5	km)
	(Page No 143,SI No : 19.14)			
	Basic rate		41	
	Maintenance -1st year escalation of 4%		1.64	
	Add 10% For area weightage (Mangalore City)		4.26	
		Rate	46.90	Cum
	Maintenance for 1st Year:			
7	KSRB 2-4: Refilling available earth around pipe lines, cables			
<b>'</b>	compacting each deposited layer by ramming after watering with I			1.5 m. including
	cost of all labour complete as per specifications.(KPWD 16-17,SI N	No.2.11,P	g. No.6)	
	Basic rate		120	
	Maintenance -1st year escalation of 4%		4.8	
	Add 10% For area weightage (Mangalore City)		12.48	
		Rate	137.28	Cum
	Maintenance for 1st Year:			
	KSRRB 300-Compaction KSRRB 300-58. Compaction of original g	ground wit	h maximum of 6 p	asses of 8 to 10
8	tonnes power roller including filling in depression occuring during re			
	machinery complete as per specifications. MORTH / Chapter 3.(KF	PWD 16-1	7,SI No.19.64,Pg	. No.149)
	Basic rate		6	
	Maintenance -1st year escalation of 4%		0.24	
	Add 10% For area weightage (Mangalore City)		0.62	
	(gamer c,)	Rate		Sqm
1				
	Maintenance for 1st Year:			
		ncrete of	mix M15 Grade	with cement @
	Maintenance for 1st Year: KSRB 4-1.6; Providing and laying in position plain cement co 240kgs, with 20mm and down size graded granite metal coarse a			
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	KSRB 4-1.6; Providing and laying in position plain cement co 240kgs, with 20mm and down size graded granite metal coarse a @ 0.459cum, machine mixed, concrete laid in layers not excifoundation, plinth and cills, ncluding cost of all materials, labour, specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 400 Granular Sub-Base with Coarse Graded Material (tal granular sub-base by providing Coarse graded crushed stone agspeading in uniform layers with motor grader on prepared surfortavator at OMC, and compacting with vibratory roller to achi MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)  Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 4.2.1: Providing and laying in position reiforcement cemerate @340Kgs, with 20mm and down size graded granite metaplasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 exceeding 15cms thick, vibrated for all works in foundation for	aggregate eeding 15 HOM of r of PWD S  Rate  ble 400-2 gregates face, mix eve the of  Rate  Rate	s @ 0.69 cum an common thick, well machinery, curing R 2015-16)  5900 236 613.6 6749.60  ) KSRRB M400-7 of granite / trap / fing by mix in pladesired density, common thick aggregate @ 0.47 e mixed, concrete, pedastals, retain	cum  Cum  Cum  Cum  Cum  Cum  Cum  Cum
10	KSRB 4-1.6; Providing and laying in position plain cement co 240kgs, with 20mm and down size graded granite metal coarse a 0.459cum, machine mixed, concrete laid in layers not excitoundation, plinth and cills, ncluding cost of all materials, labour, specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB 400 Granular Sub-Base with Coarse Graded Material (tal granular sub-base by providing Coarse graded crushed stone ag speading in uniform layers with motor grader on prepared surfortavator at OMC, and compacting with vibratory roller to achi MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)  Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 4.2.1: Providing and laying in position reiforcement cemerement @340Kgs,with 20mm and down size graded granite metaplasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 exceeding 15cms thick, vibrated for all works in foundation for walls,walls (any thickness) including attached pilasters, coluring and layers in including attached pilasters, coluring and layers including attached pilasters, coluring attached pilasters.	Rate  Rate  Rate  Rate  Rate  Rate	s @ 0.69 cum an common thick, well machinery, curing R 2015-16)  5900 236 613.6 6749.60  ) KSRRB M400-7 of granite / trap / fing by mix in pladesired density, common thick aggregate @ 0.47 et mixed, concrete, pedastals, retains, posts, struts,	Cum  Cum  Cum  Cum  Cum  Cum  Cum
10	KSRB 4-1.6; Providing and laying in position plain cement co 240kgs, with 20mm and down size graded granite metal coarse a @ 0.459cum, machine mixed, concrete laid in layers not excifoundation, plinth and cills, ncluding cost of all materials, labour, specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 400 Granular Sub-Base with Coarse Graded Material (tal granular sub-base by providing Coarse graded crushed stone agspeading in uniform layers with motor grader on prepared surfortavator at OMC, and compacting with vibratory roller to achi MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)  Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 4.2.1: Providing and laying in position reiforcement cemerate @340Kgs, with 20mm and down size graded granite metaplasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 exceeding 15cms thick, vibrated for all works in foundation for	Rate  Rate  Rate  Rate  Rate  Rate	s @ 0.69 cum an common thick, well machinery, curing R 2015-16)  5900 236 613.6 6749.60  ) KSRRB M400-7 of granite / trap / fing by mix in pladesired density, common thick aggregate @ 0.47 et mixed, concrete, pedastals, retains, posts, struts,	Cum  Cum  Cum  Cum  Cum  Cum  Cum
10	KSRB 4-1.6; Providing and laying in position plain cement co 240kgs, with 20mm and down size graded granite metal coarse a © 0.459cum, machine mixed, concrete laid in layers not excifoundation, plinth and cills, ncluding cost of all materials, labour, specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 d) Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB 400 Granular Sub-Base with Coarse Graded Material (tal granular sub-base by providing Coarse graded crushed stone ag speading in uniform layers with motor grader on prepared surrotavator at OMC, and compacting with vibratory roller to achi MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)  Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 4.2.1: Providing and laying in position reiforcement cemcement @340Kgs,with 20mm and down size graded granite metaplasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 exceeding 15cms thick, vibrated for all works in foundation for walls,walls (any thickness) including attached pilasters, colur blocks,anchor blocks & plinths etc.,Including cost of labour,HOM	Rate  Rate  Rate  Rate  Rate  Rate	s @ 0.69 cum an common thick, well machinery, curing R 2015-16)  5900 236 613.6 6749.60  ) KSRRB M400-7 of granite / trap / fing by mix in pladesired density, common thick aggregate @ 0.47 et mixed, concrete, pedastals, retains, posts, struts,	Cum  Cum  Cum  Cum  Cum  Cum  Cum
10	KSRB 4-1.6; Providing and laying in position plain cement co 240kgs, with 20mm and down size graded granite metal coarse a 0.459cum, machine mixed, concrete laid in layers not excited foundation, plinth and cills, ncluding cost of all materials, labour, specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB 400 Granular Sub-Base with Coarse Graded Material (tal granular sub-base by providing Coarse graded crushed stone agreed in uniform layers with motor grader on prepared surrotavator at OMC, and compacting with vibratory roller to achi MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)  Basic Rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRB 4.2.1: Providing and laying in position reiforcement cemcement @340Kgs,with 20mm and down size graded granite metal plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 exceeding 15cms thick, vibrated for all works in foundation for walls,walls (any thickness) including attached pilasters, columblocks,anchor blocks & plinths etc.,Including cost of labour,HOM cost of reinforcement as per specifications.	Rate  Rate  Rate  Rate  Rate  Rate	s @ 0.69 cum an common thick, well machinery, curing R 2015-16)  5900 236 613.6 6749.60  ) KSRRB M400-7 of granite / trap / fing by mix in pladesired density, common thick aggregate @ 0.47 et mixed, concrete, pedastals, retains, posts, struts,	Cum  Cum  Cum  Cum  Cum  Cum  Cum  Cum

Page 108

	Maintenance -1st year escalation of 4%		247.92	
	Add 10% For area weightage (Mangalore City)		644.59	
		Rate	7090.51	Cum
	Maintenance for 1st Year:			
	KSRB 4.6.1 Providing and removing centering, shuttering, strutting			
12	foundations, footings, bases of columns for mass concrete includi	ng cost o	of all materials,lab	our complete as
12	per specifications.			
	Specification No. KSB 4.6.2			
	(Page No 15,SI No : 4.28)			
	Basic Rate		263	
	Maintenance -1st year escalation of 4%		10.52	
	Add 10% For area weightage (Mangalore City)		27.35	
		Rate	300.87	Sqm
	Maintenance for 1st Year:		1	•
	KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work incl	udina		
	straighting, cutting, bending, hooking, placing in position, lapping and/o		a wherever require	ed.tvina with
13	binding wire and anchoring to thr adjoing members wherever neces			
.0	and wastage shall not be measured and paid) cost of materials, labor			
	specifications. Specification No. KBS4.6.3.	Jai ,i 101VI	or madrinary con	.p.oto do poi
	do with TMT bars Fe500			
	Basic Rate		70782	
	Maintenance -1st year escalation of 4%		2831.28	
	Add 10% For area weightage (Mangalore City)		7361.33	
	Tida 10781 of area weightage (mangalere ett)	Rate	80974.61	
		Nate	00374.01	141 1
14	to meet requirement of Table No. 300-2 complete as per specification charges & compaction by vibratory rollercompaction by vibratory rollercompaction No. 305			
	<u> </u>		540	
	Basic Rate			Т
	Maintenance 1st year application of 40/		513	
	Maintenance -1st year escalation of 4%		20.52	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding			
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface		20.52	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km		20.52 51.2	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total		20.52 51.2 584.72	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km	Rate	20.52 51.2 584.72 58.47	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total	Rate	20.52 51.2 584.72	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)	Rate	20.52 51.2 584.72 58.47	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:		51.2 584.72 58.47 <b>643.19</b>	Cum
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M1	15 with 1	51.2 584.72 58.47 <b>643.19</b> :5:10 OPC cemer	Cum nt @160Kgs,with
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M1 25mm and down size graded granite/trap/basalt metal coarse agg	15 with 1	51.2 584.72 58.47 643.19 :5:10 OPC cemerat 0.86cum and fi	Cum  nt @160Kgs,with ne aggregate @
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M1 25mm and down size graded granite/trap/basalt metal coarse agg 0.58cum Sub-base over prepared sub grade with (coarse and fine	15 with 1 gregate a	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fi te confirming to IS	Cum  nt @160Kgs,with ne aggregate @ 5:383) aggregate
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M1 25mm and down size graded granite/trap/basalt metal coarse agg 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending	15 with 1 gregate a aggrega g to be a	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fi te confirming to IS s per Table 600-1	Cum  nt @160Kgs,with ne aggregate @ S:383) aggregate , cement content
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M1 25mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength	5 with 1 gregate a aggrega g to be a not to be	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fi te confirming to IS s per Table 600-1 e less than 10Mpa	Cum  16 @160Kgs,with ne aggregate @ 6:383) aggregate 16, cement content 17 days,mixed
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km  Sub Total  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpansor,compacting variables.	Cum  160Kgs,with ne aggregate @ 5:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km  Sub Total  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect double drum vibratory roller,finishing and curing complete as per specific plants.	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpansor,compacting variables.	Cum  160Kgs,with ne aggregate @ 5:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km  Sub Total  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpansor,compacting variables.	Cum  160Kgs,with ne aggregate @ 5:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect double drum vibratory roller,finishing and curing complete as per sp (Page No 176,SI No : 22.1)	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 58.47 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpa nsor, compacting wors. Morth specific	Cum  nt @160Kgs,with ne aggregate @ S:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes ation No.601
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect double drum vibratory roller,finishing and curing complete as per sp (Page No 176,Sl No : 22.1)  Basic Rate	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 584.79 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpa nsor, compacting wors. Morth specifications. Morth specifications.	Cum  160Kgs,with ne aggregate @ 6:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes ation No.601
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km  Sub Total  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect double drum vibratory roller,finishing and curing complete as per sp (Page No 176,SI No : 22.1)  Basic Rate  Maintenance -1st year escalation of 4%	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 584.79 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpa nsor, compacting vons. Morth specifications. Morth specifications 4048 4048	Cum  160Kgs,with ne aggregate @ 3:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes ation No.601
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km Sub Total Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect double drum vibratory roller,finishing and curing complete as per sp (Page No 176,Sl No : 22.1)  Basic Rate	15 with 1 gregate a aggrega g to be a not to be cronic se pecification	51.2 584.72 584.79 643.19 :5:10 OPC cemerat 0.86cum and fite confirming to IS s per Table 600-1 e less than 10Mpa nsor, compacting vons. Morth specifications. Morth specifications 4048 4048 4048 4161.92	Cum  nt @160Kgs,with ne aggregate @ 3:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes ation No.601
15	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.5 Rs/ Tkm x 1.28 T x 20km  Sub Total  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  KSRRB M600-1.Construction of dry lean cement concrete mix M125mm and down size graded granite/trap/basalt metal coarse ago 0.58cum Sub-base over prepared sub grade with (coarse and fine cement ration not to excee 15:1. Aggregate gradation after blending to be determined during trail length construction, concrete strength in a batching plant,transported to site,laid with a paver with elect double drum vibratory roller,finishing and curing complete as per sp (Page No 176,SI No : 22.1)  Basic Rate  Maintenance -1st year escalation of 4%	5 with 1 gregate a aggrega g to be a not to be cronic se	51.2 584.72 584.79 643.19 :5:10 OPC cemer at 0.86cum and fit te confirming to IS s per Table 600-1 e less than 10Mpa nsor, compacting vons. Morth specifications. Morth specifications 4048 4048	Cum  nt @160Kgs,with ne aggregate @ 3:383) aggregate , cement content at 7 days,mixed with 8-10 tonnes ation No.601

## Maintenance for 1st Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs, with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content 16 to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days, mixed in a batching plant, transported to site, Manually laid and compacting with palte compactor, finishing and curing complete as per specifications. Morth specification No.601 (RA attached) **Basic Rate** 3680 Maintenance -1st year escalation of 4% 147.2 Add 10% For area weightage (Mangalore City) 382.72 Rate 4209.92 Cum Maintenance for 1st Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 Its confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form paver spread, compacted and finished in a continuos operation including provision of contraction, expansio, 17 construction and longitudinal joints, including groove cutting chrges, joints filler, separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement, C.A, 0.67 cum F.A.044Cum (Page No 176, SI No : 22.2.2) Basic Rate 5765 Maintenance -1st year escalation of 4% 230.6 599.56 Add 10% For area weightage (Mangalore City) Rate 6595.16 Cum Maintenance for 1st Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the 18 groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore, Refer 115 Sr.No.2 Maintenance -1st year escalation of 4% 4.6 Rate 119.6 Rmt Maintenance for 1st Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints 19 in concrete pavement using epoxy mortar concrete complete as per specifications. Morth specification No.3005.1 (Page No 257, SI No : 35.8) Basic Rate 331 Maintenance -1st year escalation of 4% 13.24 Add 10% For area weightage (Mangalore City) 34.42 Rate 378.66 Rmt Maintenance for 1st Year: Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more 20 than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineerin-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge). (RA Attached) Rate Arrived as per Rate analysis

	Basic Rate		17708.82	
	Maintenance -1st year escalation of 4%		708.35	
	,	Rate	18417.17	
			-	
	Maintenance for 1st Year:		l	
21	Providin and fixing pre cast solid concrete Kerb stones as per the with CM 1:3 and finishing cutting, including cost of machinery,loading,unloading,lead and lift,transportation etc.,comple (Page No 25,SI No : 5.3)	all m		
	Basic rate		421	
	Maintenance -1st year escalation of 4%		16.84	
	Add 10% For area weightage		43.78	
	Add 10% For area weightage	Doto		
		Rate	481.62	Cum
	Maintenance for 1st Year:			
22	Providin and fixing pre cast solid concrete water table(longitudinal 1:2:4 and jointed with CM 1:3 and finishing cutting, including continuous machinery, loading, unloading, lead and lift, transportation etc., completely (Page No 25, SI No : 5.3)	cost of a		
	Basic rate		421	
	Maintenance -1st year escalation of 4%		16.84	
	Add 10% For area weightage		43.78	
	rad 10701 of aloa Hoiginago	Rate	481.62	
		itato	401.02	Oum
23	Maintenance for 1st Year: Removing and resetting of kerb stones. including cost of all mate all lead and lifts, labour charges including implementation of Envi design, drawing, technical specifications and directions of Enginee	ronmenta	al and Social Safe	
	Basic rate		98	
	Maintenance -1st year escalation of 4%		3.92	
			10.19	
	Add 10% For area weightage	Rate	112.11	
		Nate	112.11	KIII
24	Maintenance for 1st Year: KSRRB 800-1. Painting two coats after filling the surface with synth new plastered concrete surfaces, with materials, labour complete a (Page No 182,SI No : 24.1)			
	Basic Rate		80	
	Maintenance -1st year escalation of 4%		3.2	
	Add 10% For area weightage (Mangalore City)		8.32	
		Rate	91.52	
25	Maintenance for 1st Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover (Rate analysis attached) Rate Arrived as per Rate analysis	with fram	ne	
	Basic Rate		917	
	Maintenance -1st year escalation of 4%		36.68	
	The first of the f	Rate	953.68	
26	Maintenance for 1st Year: Providing and Fixing Recessed Inception chamber cover - size: ( Ductile Iron (NON SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer	1250 x 1	, 	
	Sr.No.15		3500.00	
	Maintenance -1st year escalation of 4%		4.40	
	Maintenance 13t year escalation of 470		140	
	Wallierlance 13t year escalation of 470	Rate	<b>3640.00</b>	

	Maintenance for 4 of Voor			
	Maintenance for 1st Year:		inad alimpusanta in	
07	Providing gully pipe lowering, laying of PVC 100 mm dia pipes to			
27	and grade as indicated in drawings/design and hydraulically testi			
	jointing materials, testing apparatus and water for testi g etc as	directed	by the Engineer	ın charge (pag
	No.41,Item No.7,KUWSDB SOR 2016-17)	,		
	Basic Rate		297	
	Maintenance -1st year escalation of 4%		11.88	
	Add 12% on Labor Charges=Rs.47,For area weightage		F C4	
	(Mangalore City)		5.64	
		Rate	314.52	Rm
	Maintenance for 1st Year:			
	KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100	mm dia. of	f self cleaning des	ian with
	screwed down or hinged grating with or without vent arm including			
28	floors, cost of materials, labour, testing, complete as per specifical			
	(PWD SR 2015-16,P.No.86, SI.No.12.89)	попо орос	modulon No. NBC	11.1.10.
	(1 WD GR 2013 10,1 110.00, GI.NO.12.03)			
		1		T
	Basic Rate		830	
	Maintenance -1st year escalation of 4%		33.2	
	Add 10% For area weightage (Mangalore City)		86.32	
		Rate	949.52	Nos.
	Maintenance for 1st Year:			
	KSRRB M800- Cable Duct Across the road KSRRB M800-29.1.	Providing	and laying of a re	inforced ceme
	concrete pipe duct, 300 mm dia, across the road (new constructio			
	toe of slope to toe of slope in fills, constructing head walls at bot			
	material over top and sides of RCC pipe as per IRC:98-1997,			
	material free of rock pieces, outer to outer distance of pipe at leas			
29				
	in case of double and triple row ducts, joints to be made leak pr			
	than ground level to prevent entry of water and dirt, all as pe		3 - 1997 and app	proved drawing
	complete as per specifications. Case - I : Single row for one utility	service		
	( KPWD SOR 16-17,Item No.24.34,Pg.No.188)			
	Basic Rate		5022	
	Basic Rate Maintenance -1st year escalation of 4%		5022	
	Maintenance -1st year escalation of 4%		200.88	
		Pate	200.88 522.29	
	Maintenance -1st year escalation of 4%	Rate	200.88	
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)	Rate	200.88 522.29	
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:		200.88 522.29 <b>5745.17</b>	Rm
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore	Lubricant	200.88 522.29 <b>5745.17</b> t inner layer with r	Rm ibs, dimension
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the	Lubricant e normal o	200.88 522.29 5745.17 t inner layer with reperating tempara	Rm ibs, dimension ture 90°C und
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties contains the contains of the contains the conta	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with roperating tempara to ASTMF 2160	ribs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties control. TC7. The expected service life of HDPE pipe conduits and accessors.	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with roperating tempara to ASTMF 2160	Rm ibs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties contains the contains of the contains the conta	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with roperating tempara to ASTMF 2160	ribs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7.The expected service life of HDPE pipe conduits and accesse (Market Rate)	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with roperating tempara to ASTMF 2160	ribs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties control. TC7. The expected service life of HDPE pipe conduits and accessors.	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with roperating tempara to ASTMF 2160	ribs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7.The expected service life of HDPE pipe conduits and accesse (Market Rate)	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with reperating tempara to ASTMF 2160 not be less than 5	Rm ibs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties control TC7. The expected service life of HDPE pipe conduits and accessed (Market Rate)  Basic Rate Deduct GST @18%	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with reperating tempara to ASTMF 2160 not be less than 5	Rm ibs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties control TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB, HDPE Pipes, Item	Lubricante normal comforming	200.88 522.29 5745.17 t inner layer with reperating tempara to ASTMF 2160 not be less than 5	ribs, dimension ture 90°C undo and /or NEM
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123)	Lubricante normal comforming	200.88 522.29 5745.17 It inner layer with reperating tempara to ASTMF 2160 not be less than 8	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City)	Lubricante normal comforming	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7.The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total	Lubricante normal comforming	200.88 522.29 5745.17 It inner layer with reperating temparal to ASTMF 2160 not be less than 5 2300 -414 78 9.36 1973.36	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City)	Lubricant e normal o omforming ories shall	200.88 522.29 5745.17 It inner layer with reperating temparal to ASTMF 2160 not be less than 5 2300 -414 78 9.36 1973.36 78.93	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7.The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total	Lubricante normal comforming	200.88 522.29 5745.17 It inner layer with reperating temparal to ASTMF 2160 not be less than 5 2300 -414 78 9.36 1973.36	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7.The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total	Lubricant e normal o omforming ories shall	200.88 522.29 5745.17 It inner layer with reperating temparal to ASTMF 2160 not be less than 5 2300 -414 78 9.36 1973.36 78.93	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%	Lubricant e normal o omforming ories shall	200.88 522.29 5745.17 It inner layer with reperating temparal to ASTMF 2160 not be less than 5 2300 -414 78 9.36 1973.36 78.93	Rm ibs, dimension ture 90°C und and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties control TC7. The expected service life of HDPE pipe conduits and access (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB, HDPE Pipes, Item No.50, Pg. No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year:	Lubricant e normal o omforming ories shall Rate	200.88 522.29 5745.17 It inner layer with reperating temparal to ASTMF 2160 not be less than 5 2300 -414 78 9.36 1973.36 78.93 2052.29	Rm ibs, dimension ture 90°C und and /or NEM 50 years.
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and access (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB, HDPE Pipes, Item No.50, Pg. No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore	Lubricant e normal o omforming ories shall  Rate  Lubricant	200.88 522.29 5745.17  It inner layer with reperating temparary to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29	Rm  ibs, dimension ture 90°C und and /or NEM 50 years.  Rm
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties content of the expected service life of HDPE pipe conduits and access (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the	Lubricant e normal o omforming ories shall  Rate  Lubricant e normal o	200.88 522.29 5745.17  It inner layer with reperating temparary to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29	Rm  ibs, dimension ture 90°C und and /or NEM 50 years.  Rm  ibs, dimension ture 90°C und
30	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and access (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB, HDPE Pipes, Item No.50, Pg. No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore	Lubricant e normal o omforming ories shall  Rate  Lubricant e normal o	200.88 522.29 5745.17  It inner layer with reperating temparary to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29	Rm  ibs, dimension ture 90°C und and /or NEM 50 years.  Rm  ibs, dimension ture 90°C und
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and access (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties co	Lubricant e normal de pries shall  Rate  Lubricant e normal de pries shall	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29  It inner layer with reperating temparal to ASTMF 2160 not be less than 5	Rm ibs, dimension ture 90°C und and /or NEM 50 years.  Rm ibs, dimension ture 90°C und and /or NEM
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accessed	Lubricant e normal de pries shall  Rate  Lubricant e normal de pries shall	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29  It inner layer with reperating temparal to ASTMF 2160 not be less than 5	Rm ibs, dimension ture 90°C und and /or NEM 50 years.  Rm ibs, dimension ture 90°C und and /or NEM 50 years.
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and access (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB, HDPE Pipes, Item No.50, Pg. No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5, Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accessor Rate)	Lubricant e normal de pries shall  Rate  Lubricant e normal de pries shall	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  It inner layer with reperating temparal to ASTMF 2160 not be less than 5	Rm  ibs, dimension ture 90°C und and /or NEM ibs, dimension ture 90°C und and /or NEM ibs, dimension ture 90°C und and /or NEM ibs years.(Mark
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse Rate) Basic Rate	Lubricant e normal de pries shall  Rate  Lubricant e normal de pries shall	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29  It inner layer with reperating temparal to ASTMF 2160 not be less than 5	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.  Rm ibs, dimension ture 90°C undo and /or NEM 50 years.(Mark
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse Rate) Basic Rate Deduct GST @18%	Lubricant e normal de pries shall  Rate  Lubricant e normal de pries shall	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  It inner layer with reperating temparal to ASTMF 2160 not be less than 5	Rm ibs, dimensionature 90°C under and /or NEM of years.  Rm ibs, dimensionature 90°C under and /or NEM of and /or NEM of and /or NEM of years.(Market
	Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse (Market Rate)  Basic Rate Deduct GST @18% Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123) Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore ratio of 13.5,Deflection not greater than 5% when exposed to the the over burden soil presuure and other physical properties of TC7. The expected service life of HDPE pipe conduits and accesse Rate) Basic Rate	Lubricant e normal de pries shall  Rate  Lubricant e normal de pries shall	200.88 522.29 5745.17  It inner layer with reperating temparal to ASTMF 2160 not be less than 5  2300 -414 78 9.36 1973.36 78.93 2052.29  It inner layer with reperating temparal to ASTMF 2160 not be less than 5	Rm ibs, dimension ture 90°C undo and /or NEM 50 years.  Rm ibs, dimension ture 90°C undo and /or NEM 50 years.(Market

			7.00	
	Add 12% For area weightage (Mangalore City)		7.92	
	Sub Total		1070.22	
	Maintenance -1st year escalation of 4%		42.81	
		Rate	1113.03	Rm
32	Maintenance for 1st Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm Spacers shall be made of ABS raw material. (Market rate)	, to be p	laced at an interv	al of 1.5 met
	Basic Rate		1002	
			1003	
	Maintenance -1st year escalation of 4%		40.12	
		Rate	1043.12	Nos.
33	Maintenance for 1st Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm Spacers shall be made of ABS raw material. (Market rate)	, to be p	laced at an interv	/al of 1.5 me
	Basic Rate		1947	
	Maintenance -1st year escalation of 4%		77.88	
	The first fact of the fact of	Rate	2024.88	
		Nate	2024.00	1405.
34	Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore L comforming to ASTMF 2160 and /or equivalent indian standard a and unloading at both destination and rolling,lowering into trendetc.Complete.  (Market Rate)	nd conve	ying to work site i	ncluding load
	Basic Rate		685	
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item		000	
	No.50,Pg.No.123)		36	
			00	
	Add 12% For area weightage (Mangalore City)		4.32	
	Add 12% For area weightage (Mangalore City) Sub Total		4.32 725.32	
	Add 12% For area weightage (Mangalore City)		4.32 725.32 29.01	
	Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%	Rate	4.32 725.32	
35	Add 12% For area weightage (Mangalore City) Sub Total	cement aressive streate vibrate	4.32 725.32 29.01 754.33 and course sand for ength of 281 kg per per having 3 tons compaction of pavor	Rm  r manufacture er sqm over compaction for er surface joir
35	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compres 30mm thick sand bed (average thickness) and compacting with pl thereby forcing part of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,SI No : 14.6)	cement aressive streate vibrate	4.32 725.32 29.01 754.33 and course sand for ength of 281 kg per or having 3 tons compaction of pavers complete as per	Rm  r manufacture or sqm over compaction for er surface joir r specification
335	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compres 30mm thick sand bed (average thickness) and compacting with pl thereby forcing part of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,SI No : 14.6)  Basic rate	cement aressive streate vibrate	4.32 725.32 29.01 754.33 and course sand for ength of 281 kg per per having 3 tons compaction of pavers complete as per 1056.00	Rm  r manufacture or sqm over compaction for er surface join r specification
35	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compression of the sand bed (average thickness) and compacting with plathereby forcing part of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of materials (Page No 101,SI No : 14.6)  Basic rate  Maintenance -1st year escalation of 4%	cement aressive streate vibrate	4.32 725.32 29.01 754.33 and course sand for ength of 281 kg per per having 3 tons compaction of pavers complete as per	Rm  r manufacture er sqm over compaction for er surface join r specification
335	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compres 30mm thick sand bed (average thickness) and compacting with pl thereby forcing part of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,SI No : 14.6)  Basic rate	cement aressive streate vibrate that contact in a contact	4.32 725.32 29.01 754.33  and course sand for ength of 281 kg per per having 3 tons compaction of pavers complete as per per having 3 tons compaction of pavers complete as per per having 3 tons compaction of pavers complete as per per having 3 tons compaction of pavers complete as per per having 3 tons compaction of pavers complete as per	Rm  r manufacture r sqm over ompaction for er surface join r specification
335	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compression of the sand bed (average thickness) and compacting with plathereby forcing part of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of materials (Page No 101,SI No : 14.6)  Basic rate  Maintenance -1st year escalation of 4%	cement aressive streate vibrate	4.32 725.32 29.01 754.33 and course sand for ength of 281 kg per per having 3 tons compaction of pavers complete as per	Rm  r manufacture r sqm over ompaction for er surface joir r specification
35	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compression of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,Sl No : 14.6)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  Providing and laying heavy duty Tactile Tiles (Direction and Stop ti in colour, using cement and course sand for manufacture of block compressive strength of 281 kg per sqm over 30mm thick sand be plate vibrator having 3 tons compaction force thereby forcing part of joints, final compaction of paver surface joints into its final level, incompactioneries complete as per specifications.	cement aressive streate vibrate at a vibrate achinerie Rate  les-300 x s of approd (averagof sand ur	4.32 725.32 29.01 754.33  and course sand for ength of 281 kg per	Rm  r manufacture or sqm over compaction for er surface join r specification  Sqm  nick and Yello with a minimur compacting we up in between
	Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying heavy duty cobble stones 60mm thick, using blocks of approved size, shape and colour with a minimum compression of the sand bed (average thickness) and compacting with platereby forcing part of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,SI No : 14.6)  Basic rate Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying heavy duty Tactile Tiles (Direction and Stop tin colour, using cement and course sand for manufacture of block compressive strength of 281 kg per sqm over 30mm thick sand be plate vibrator having 3 tons compaction force thereby forcing part of joints, final compaction of paver surface joints into its final level, in of machineries complete as per specifications. (Non SOR Item)	cement aressive streate vibrate at a vibrate achinerie Rate  les-300 x s of approd (averagof sand ur	4.32 725.32 29.01 754.33  and course sand for ength of 281 kg per	Rm  r manufacture or sqm over compaction for er surface joir r specification  Sqm  nick and Yello with a minimul compacting we up in between
	Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying heavy duty cobble stones 60mm thick, using blocks of approved size, shape and colour with a minimum compression of a point of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,SI No : 14.6)  Basic rate Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying heavy duty Tactile Tiles (Direction and Stop ti in colour, using cement and course sand for manufacture of block compressive strength of 281 kg per sqm over 30mm thick sand be plate vibrator having 3 tons compaction force thereby forcing part of joints, final compaction of paver surface joints into its final level, in of machineries complete as per specifications. (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	cement aressive streate vibrate at a vibrate achinerie Rate  les-300 x s of approd (averagof sand ur	4.32 725.32 29.01 754.33  and course sand for ength of 281 kg per	Rm  r manufacture or sqm over compaction for er surface join r specification  Sqm  nick and Yello with a minimur compacting we up in between bour and HOM
	Add 12% For area weightage (Mangalore City)  Sub Total  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Providing and laying heavy duty cobble stones 60mm thick, using a blocks of approved size, shape and colour with a minimum compression of approved size, shape and colour with a minimum compression of a portion of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,Sl No : 14.6)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year:  Providing and laying heavy duty Tactile Tiles (Direction and Stop tin colour, using cement and course sand for manufacture of block compressive strength of 281 kg per sqm over 30mm thick sand be plate vibrator having 3 tons compaction force thereby forcing part of joints, final compaction of paver surface joints into its final level, in of machineries complete as per specifications.  (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12	cement aressive streate vibrate at a vibrate achinerie Rate  les-300 x s of approd (averagof sand ur	4.32 725.32 29.01 754.33  and course sand for ength of 281 kg per compaction of pavers complete as per complete as per compaction of pavers complete as per com	Rm  r manufacture or sqm over compaction for er surface joir r specification  Sqm  hick and Yello with a minimur compacting we up in betwee bour and HON
	Add 12% For area weightage (Mangalore City) Sub Total Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Providing and laying heavy duty cobble stones 60mm thick, using blocks of approved size, shape and colour with a minimum compression of a point of sand underneath to come up in between join into its final level, including cost of materials, labour and HOM of m (Page No 101,SI No : 14.6)  Basic rate Maintenance -1st year escalation of 4% Add 10% For area weightage (Mangalore City)  Maintenance for 1st Year: Providing and laying heavy duty Tactile Tiles (Direction and Stop ti in colour, using cement and course sand for manufacture of block compressive strength of 281 kg per sqm over 30mm thick sand be plate vibrator having 3 tons compaction force thereby forcing part of joints, final compaction of paver surface joints into its final level, in of machineries complete as per specifications. (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	cement aressive streate vibrate at a vibrate achinerie Rate  les-300 x s of approd (averagof sand ur	4.32 725.32 29.01 754.33  and course sand for ength of 281 kg per	Rm  r manufacture r sqm over compaction for er surface joir r specification  Sqm  nick and Yello with a minimul compacting we up in betwee bour and HOI

	Maintenance for 1st Year:			
	Providing and laying heavy duty cobble stones 75mm thick, using	cement a	nd course sand fo	r manufacture of
	blocks of approved size, shape and colour with a minimum com			
	30mm thick sand bed (average thickness ) and compacting with pl			
37	thereby forcing part of sand underneath to come up in between joi			
	into its final level, including cost of materials, labour and HOM of m			
	(Page No 101,SI No : 14.7)		o complete de po	opcomodiono.
	(i. ago ito ioi,oiito i i iii)			
	Basic rate		1114	
	Maintenance -1st year escalation of 4%		44.56	
	Add 10% For area weightage (Mangalore City)		115.86	
		Rate	1274.42	
		Nate	1217.72	John
	Maintenance for 1st Year:			
	KSRRB M500-17. Providing and laying dense graded bituminou	is macac	lam lising criishe	d angregates of
	specified grading, premixed with VG30 grade bituminous binder			
38	laying to the required grade, level and alignment, rolling with smooth			
30	achieve the desired compaction as per MORTH table 500-10			
	specifications MORTH Specification No. 507 -using 100/120 TF	•		
	(50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No			noon paron on n
	Basic rate	I	, ,	T
	Maintenance -1st year escalation of 4%		7839 313.56	
	·		815.26	
	Add 10% For area weightage (Mangalore City)	Rate	8967.82	
		Rate	6907.82	Cum
	Maintenance for 4 of Veer-			
	Maintenance for 1st Year:	nm thiak	with hot mix plan	t using stucked
	KSRRB M500-19. Providing and laying bituminous concrete 40 raggregates of specified grading, premixed with bituminous binder			
	site, laying with a paver finisher to the required grade, level ar			
39	vibratory and tandem rollers to achieve the desired compaction as			
	complete in all respects complete as per specifications. MORTH			
	capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with			using40/00 1711
	Capacity 11.10.1 . With Mechanical Laver Of It (50 Hill to 45 Hill) with	70 VC	5 40 Ditamen	
	Basic rate		8761	
	Maintenance -1st year escalation of 4%		350.44	
	Add 10% For area weightage (Mangalore City)		911.14	
		Rate	10022.58	Cum
	Maintenance for 1st Year:			
	KSRRB M800 Road markers / Road stud KSRRB M800-35. Prov			
40	diecast in aluminium, resistant to corrosive effect of salt and g			
40	concrete or asphaltic surface by drilling hole 30 mm upto a d			
	bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 c	omplete a	as per specification	าร
	Basic rate		289	
	Maintenance -1st year escalation of 4%		11.56	
	Add 10% For area weightage (Mangalore City)		30.06	
	3 4 5 4 5 4 5 4 7 7	Rate	330.62	
			3333	
	Maintenance for 1st Year:	1		
	Road Marking with hot applied Thermoplastic Compound with	Reflecti	rising Glass Bea	ds on Concrete
	Surface: Providing and laying of hot applied thermoplastic compour			
41	beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2			
	beads as per IRC:35. The finished surface to be level, uniform and			
	specifications.MORTH specification No.803			
	(Page No 192,SI No : 24.57)			
	Basic Rate		429	
	Maintenance -1st year escalation of 4%		17.16	
	Add 10% For area weightage (Mangalore City)		44.62	
	Total of area weightage (mangalore Oity)	Rate	490.78	
		Nate	+30.76	
		I	<u> </u>	<u> </u>
	Maintenance for 1st Year:			
42	Maintenance for 1st Year:  Operation and Maintenance for eToilets Stainless Steel Public M	odel as s	necified in Road	and Other works
42	Maintenance for 1st Year: Operation and Maintenance for eToilets Stainless Steel Public M BOQ Item No.45.	odel as s	specified in Road	and Other works

	Baisc rate		61200	
	Maintenance -1st year escalation of 4%		2448	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer	Rate	63648	Nos.
	Sr.No.1			
	Maintenance for 4 of Voor			
	Maintenance for 1st Year:	ما ممما مانه	easted by Engine	or in aborda
43	Providing and fixing of S.S. Bollards(SS304) on footpath as specific	ed and dir	ected by Engine	er -in-charge
	(NON SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer			
	Sr.No.13		4500.00	
	Maintenance -1st year escalation of 4%		180	
		Rate	4680	Nos.
	Maintenance for 1st Year:	l.		
	Providing and fixing of railing as detail design in MS HOLLOW SEC	CTION and	d bars ( shop drav	wing to be
44	approved ), with vertical support of 0.9m @2.2mc/c , all complete to			
	architect.(Non SOR Item)			·
	Rate Approved as per EOI by MD MSCL Mangalore,Refer			
	Sr.No.26		100000.00	
	Maintenance -1st year escalation of 4%		4000	
		Rate	104000	мт
	Maintenance for 1st Year:			
	Excavation and removal of silt and silt mixed with sand in slussy co	ndition fro	m canal bed incl	uding disposina
	off the same in spoil bank or on the canal embankment in layers as			
45	m and all lifts. For Desilting of drains and grit chambers including of			
	machineries with all lead and lifts, labour charges including implem			
	Safeguards & as per design, drawing, technical specifications and			
			-	-
	Basic Rate		179.00	
	Maintenance -1st year escalation of 4%		7.16	
		Rate	186.16	Nos.
	Maintenance for 1st Year:			
46	Extra Lead for Disposing off unserviceable materials upto 10 Km be	evond initia	al Lead	
	Item No 17.4 KSRRB M100-4.1-Earth	•		
	Earth	2 0v	1.28x10km	
	Baisc rate	2.01	25.60	
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-			
	1)		57.00	
	Sub Total-1		82.60	
	Add 10% For area weightage (Mangalore City)		8.26	
	Sub Total-2		90.86	
	Maintenance -1st year escalation of 4%		3.63	
	,	Rate	94.49	Cum
	Maintenance for 1st Year:			
47	Extra Lead for Disposing off unserviceable materials upto 10 Km be	eyond initia	al Lead	
	Item No 17.4 KSRRB M100-4.1-Debris	,		
	Debris	2.0x	1.30x10Km	
	Baisc rate	1.0%	26.00	
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-			
	1)		57.00	
	Sub Total-1		83.00	
	Add 10% For area weightage (Mangalore City)		8.3	
	Sub Total-2		91.30	
	Maintenance -1st year escalation of 4%		3.65	
		Rate	94.95	Cum
	Lighting Poles			
	Maintenance for 1st Year:			
40	Dismantling of pole/ street light standard/ strut embedded in cemer	nt concrete	)	
48	foundation etc. as required			
	(Delhi analysis of rates E & M 2016, item 12.42, pg 395))			

	Basic Rate		1,681	
	Maintenance -1st year escalation of 4%	Doto	67.23 <b>1747.87</b>	
		Rate	1/4/.8/	NOS.
	Maintenance for 1st Year:		<u> </u>	<u> </u>
	Lighting Pole, 9 m  Fabrication, supply and erection of 9 meters long hot dip Galvanise	d Octago	onal pole with BSE	10025 grade S
49	355 JO steel plate for shaft, IS 2062 for base plate with oor opening bakelite sheet and MCBs as per IS specifications suitable for wind states.	g arrange speed of	ement, icluding sui 47 m/sec for 5 m	table boards, pole in single
49	section and single joint welded as per IS 9595/IS 10178 AWG having mm with 3 mm thick, suitable base plate and 4 nos. of a long J both be hot dip galvanized in single dipping with not less than 65 micron (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)	lts along	with template and	the pole shall
	Basic rate		17118	
	Maintenance -1st year escalation of 4%		684.72	
		Rate	17,802.72	Nos.
50	Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised 355 JO steel plate for shaft, IS 2062 for base plate with oor opening bakelite sheet and MCBs as per IS specifications suitable for wind section and single joint welded as per IS 9595/IS 10178 AWG having mm with 3 mm thick, suitable base plate and 4 nos. of long J bo be hot dip galvanized in single dipping with not less than 65 micron (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	g arrange speed of ng dimen lts along	ement, icluding sui 47 m/sec for 5 m sions bottom 155 with template and	table boards, pole in single mm dia, top 70 the pole shall
	Basic rate		12420	
	Maintenance -1st year escalation of 4%		496.8	
	,	Rate	12,916.80	
51	Maintenance for 1st Year: Lighting Pole, 4 m Fabrication, supply and erection of 4 meters long hot dip Galvanise 355 JO steel plate for shaft, IS 2062 for base plate with door opening bakelite sheet and MCBs as per IS specifications suitable for wind section and single joint welded as per IS 9595/IS 10178 AWG having mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts a hot dip galvanized in single dipping with not less than 65 micron as foundation) as per drawing appended (Ref Electrical SOR SI No.5.14.2)	ng arrang speed of ng dimen along witl	gement, icluding si 47 m/sec for 5 4 p sions bottom 130 h template and the M - A123 and 153	uitable boards, pole in single mm dia, top 70 e pole shall be etc., (excluding
	Basic rate 4.44		7398	
	Maintenance -1st year escalation of 4%	Dat-	295.92	
52	Maintenance for 1st Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Rate outdoor l	7,693.92 uminaries and mo	
	Basic rate		3540	
	Maintenance -1st year escalation of 4%		141.6	
		Rate	3,681.60	
53	Maintenance for 1st Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)			
	Basic rate		2400	
	Maintenance -1st year escalation of 4%		96	
		Rate	2,496	Nos.
54	Maintenance for 1st Year: Painting of Existing street light pole after scrapping the old paint an including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)		d with suitable cold	our enamel

	Basic rate		620	
	Maintenance -1st year escalation of 4%		24.8	
	Walliterlance - 13t year escalation of 470	Rate		Nos.
	Oudoor Box and Switch Gear	Nate	043	1405.
	Maintenance for 1st Year:			
55		hay far ma	ounting MCP/Con	tactore with all
55	Supply, installation, testing and commissioning of outdoor junction	DOX TOT THE	bunting MCB/Cor	itactors with all
	required accessories and componenets			
	Price list (Considering 30% discount , 18% GST & 10% profit)		11782.92	
	Maintananae dat year appolation of 40/		474.00	
	Maintenance -1st year escalation of 4%	Doto	471.32	Nac
		Rate	12,254	NOS.
	Maintenance for 1st Year:			
	Supply and fixing of miniature circuit breaker on exisiting board using			
56	curve, indicator ON/OFF, energy cross-3 with short circuit breaking	capacity	of 10 KA complet	e wiring as
00	required confirming to IEC 60898			
	5- 32A TPN			
	Electrical SOR- 6.16.5)			
	Basic rate		1547	
	Maintenance -1st year escalation of 4%		61.88	
		Rate	1,609	Nos.
			•	
-	LT Cable			
	Maintenance for 1st Year:	1		I
	Supplying of 1.1 kV LT cable having aluminium conductor PVC inst	ulated ext	ruded inner shea	thed
	galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as			
57	sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming			adda i vo odici
	4 Core x16 Sq.mm PVC Aluminium Conductor,	ig to OTT	or ortoor b	
	(Ref Electrical SOR SI No.7.5,7.5.4)			
	, , , , , , , , , , , , , , , , , , ,	1	447	T
	Basic rate		117	
	Maintenance -1st year escalation of 4%		4.68	
		Rate	4.68 <b>121.68</b>	
	Maintenance for 1st Year:		121.68	Rm
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade f	lexible cop	121.68 oper with low con-	Rm ductor
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade flexification conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC ins	lexible copulation an	121.68 oper with low conducted sheathed suital	Rm ductor
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC instructions voltage up to 1100 V as per IS-694:1990 and conforming to GTP of the confor	lexible copulation an	121.68 oper with low conducted sheathed suital	Rm ductor
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade flexification conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC ins	lexible copulation an	121.68 oper with low conducted sheathed suital	Rm ductor
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC instructions voltage up to 1100 V as per IS-694:1990 and conforming to GTP of the confor	lexible copulation an	121.68 oper with low conducted sheathed suital	Rm ductor ole for working
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade from forming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate	lexible copulation an	nper with low cond sheathed suital	Rm ductor ole for working
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade from forming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	lexible copulation an	pper with low cond sheathed suital 81.6 3.26	Rm ductor ole for working
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade from forming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate	lexible copulation an	nper with low cond sheathed suital	Rm ductor ole for working
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%	lexible copulation an	pper with low cond sheathed suital 81.6 3.26	Rm ductor ole for working
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade from forming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:	lexible copulation and Group A	pper with low cond sheathed suital 81.6 3.26 84.86	Rm ductor ole for working Rm
58	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade from forming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal positions.	lexible copulation and Group A	pper with low cond sheathed suital 81.6 3.26 84.86	Rm ductor ole for working Rm
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal processing the sq. mm PVC Aluminium Conductor	lexible copulation and Group A	pper with low cond sheathed suital 81.6 3.26 84.86	Rm ductor ole for working Rm
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional professio	lexible copulation and Group A	nper with low cond sheathed suital street st	Rm ductor ole for working Rm
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insigned voltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional p	lexible copulation and Group A	pper with low cond sheathed suital and the suital a	Rm ductor ole for working  Rm es
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional professio	lexible copulation and Group A	nper with low cond sheathed suital street and street an	Rm ductor ole for working  Rm es
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insigned voltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional p	lexible copulation and Group A	pper with low cond sheathed suital and the suital a	Rm ductor ole for working  Rm es
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional professio	lexible copulation and Group A	nper with low cond sheathed suital street and street an	Rm ductor ole for working  Rm es
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional professio	Rate Rate	nper with low cond sheathed suital suita suital suita suital suita suita suita suital suita sui	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional professio	Rate Rate	nper with low cond sheathed suital suita suital suita suital suita suita suita suital suita sui	Rm ductor ple for working  Rm es
	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal processor of the following state of the followi	Rate Rate	nper with low cond sheathed suital suita suital suita suital suita suita suita suital suita sui	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insigned up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal profession of the sq. mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal profession of the sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Rate Rate	121.68  oper with low cond sheathed suital and sheathed	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade fronforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional profession	Rate Rate	nper with low cond sheathed suital street of following sizes of follow	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade for conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insigned up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal profession of the sq. mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal profession of the sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Rate Rate	121.68  oper with low cond sheathed suital and sheathed	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade fronforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional profession	Rate Rate	nper with low cond sheathed suital street of following sizes of follow	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade fronforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional profession	lexible copulation and Group A  Rate  oint for wire  oint for wire	121.68  oper with low cond sheathed suital and sheathed sheathe	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade fronforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional profession	lexible copulation and Group A  Rate  oint for wire  oint for wire	121.68  oper with low cond sheathed suital and sheathed sheathe	Rm ductor ple for working  Rm es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade flexing to Table 3 Class 5 of IS:8130-1984 and vargin PVC instructions voltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal professional prof	Rate  Coint for wire  Rate	121.68 oper with low cond sheathed suital street of following sizes of	Rm ductor ble for working  Rm es  Nos.
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance -1st year escalation of 4%	Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate	121.68 oper with low cond sheathed suital and sheathed sheath	Rm ductor ole for working  Rm es  Nos.  vy using copper
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance -1st year escalation of 4%  Maintenance -1st year escalation of 4%	Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate	121.68  oper with low cond sheathed suital and sheathed she	Rm ductor ple for working  Rm es  Nos.  es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance -1st year escalation of 4%	Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate	121.68  oper with low cond sheathed suital and sheathed she	Rm ductor ple for working  Rm es  Nos.  es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal post for Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal post for the sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance -1st year escalation of 4%	Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate	121.68  oper with low cond sheathed suital and sheathed she	Rm ductor ple for working  Rm es  Nos.  es
59	Maintenance for 1st Year: Supply and drawing flexible multicore cable with electrolyte grade ficonforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insvoltage up to 1100 V as per IS-694:1990 and conforming to GTP of 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance -1st year escalation of 4%  Maintenance -1st year escalation of 4%  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Chemical Earthing for grounding, conduits, IC cut outs and other equivalence of the square of the	Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate  Coint for wire  Rate	121.68  oper with low cond sheathed suital and sheathed she	Rm ductor ple for working  Rm es  Nos.  es

	Basic rate		5500				
	Maintenance -1st year escalation of 4%		220				
		Rate	5720	Kit			
	Maintenance for 1st Year:						
62	Supply and running GI conductor for grounding and (along with ot		n conduits system	of wiring) us			
02	necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG						
	(Ref Electrical SOR SI No.7.22.3)						
	Basic rate		19.5				
	Maintenance -1st year escalation of 4%		0.78				
	Wall terraince -15t year escalation of 470	Rate	20.28				
		Nate	20.20	Kilit			
	Market and the Annual Control of the Annual						
	Maintenance for 1st Year:						
63	Supplying and stacking of good earth at site including royalty an	d carriage	upto 5 k.m. lead	complete (ea			
	measured in stacks will be reduced by 20% for payment).						
	(Non SOR Item)						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		140.00				
	Sr.No.27		140.00				
	Maintenance -1st year escalation of 4%		5.6				
	·	Rate	145.60	Cum			
	Maintananae fau dat Vass:	1		1			
	Maintenance for 1st Year:		D M000 44 5				
	KSRRB M300-Supply at site of work well decayed farm yard man						
64	well decayed farm yard manure, from any available source, ap						
	screening and stackin complete as per specifications.	MORTH	Specification N	lo. 308.2(Pa			
	No.152,SI.No.19.90)						
	Basic rate		204				
	Maintenance -1st year escalation of 4%		8.16				
	Add 10% For area weightage		21.22				
	Add 10701 of area weightage	Rate	233.38	Cum			
		Rate	233.30	Cum			
65	Maintenance for 1st Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good ear	th in requir	red thickness (cos	t of sludge, fa			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good earth yard manure or/and good earth to be paid for separately) Specification No. 307	th in requir	red thickness (cos	t of sludge, fa			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	th in requir	red thickness (cos as per specific	t of sludge, fa ations. MOR			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate	th in requir	red thickness (cos as per specific 103	t of sludge, fa ations. MOR			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	th in requir	red thickness (cos as per specific	t of sludge, fa ations. MOR			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate	th in requir	red thickness (cos as per specific 103	t of sludge, fa ations. MOR			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%	th in requir	red thickness (cos as per specific 103 4.12 10.71	t of sludge, fa			
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage	th in requir complete	red thickness (cos as per specific 103 4.12	t of sludge, for ations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:	th in requir complete	103 4.12 10.71 117.83	t of sludge, for ations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion specification.	th in requir complete	103 4.12 10.71 117.83	t of sludge, for ations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:	th in requir complete	103 4.12 10.71 117.83	t of sludge, fations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion specification (Non SOR item)	th in requir complete	103 4.12 10.71 117.83	t of sludge, fa ations. MOR			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year: Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	th in requir complete	red thickness (cos as per specific 103 4.12 10.71 117.83 rected by the Office	t of sludge, fa ations. MOR			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	th in requir complete	103 4.12 10.71 117.83 rected by the Office	t of sludge, fa ations. MOR			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year: Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	Rate	103 4.12 10.71 117.83 rected by the Office 23.91 0.96	t of sludge, for ations. MOR			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	th in requir complete	103 4.12 10.71 117.83 rected by the Office	t of sludge, for ations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	Rate	103 4.12 10.71 117.83 rected by the Office 23.91 0.96	t of sludge, for ations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	Rate	103 4.12 10.71 117.83 rected by the Office 23.91 0.96	t of sludge, for ations. MOF			
	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion specification (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:	Rate Rate	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87	t of sludge, f ations. MOF  Cum  er-in-charge  Cum			
666	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Maintenance of lawns or Turfing of slopes (rough grassing) for	Rate  Rate  Rate  a period of	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87	t of sludge, f ations. MOF  Cum  cer-in-charge  Cum			
666	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early yard manure or/and good early to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Maintenance of lawns or Turfing of slopes (rough grassing) for complete including cost of all materials, scaffolding HOM of mach	Rate  Rate  a period coineries with	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts	t of sludge, f ations. MOF  Cum  cer-in-charge  Cum  ling watering, labour char			
666	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early yard ward ward for yard manure or/	Rate  Rate  a period coineries with	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts	t of sludge, f ations. MOF  Cum  cer-in-charge  Cum  ling watering, labour char			
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66	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early yard ward ward for yard manure or/	Rate  Rate  a period coineries with	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts	t of sludge, for ations. MOR  Cum  cer-in-charge  Cum  ling watering a labour charge			
666	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good earth to be paid for separately) Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage  Maintenance for 1st Year:  Mixing earth and sludge or manure in the required proportion spec (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance -1st year escalation of 4%  Maintenance for 1st Year:  Maintenance of lawns or Turfing of slopes (rough grassing) for complete including cost of all materials, scaffolding HOM of mach including implementation of Environmental and Social Safegu specifications and directions of Engineer-in-charge.  Basic rate	Rate  Rate  a period coineries with	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts a per design, drawn 103	t of sludge, fa ations. MOR  Cum  cer-in-charge  Cum  ling watering a labour charge			
666	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure of (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance for 1st Year:  Maintenance for 1st Year:  Maintenance of lawns or Turfing of slopes (rough grassing) for complete including cost of all materials, scaffolding HOM of mach including implementation of Environmental and Social Safegu specifications and directions of Engineer-in-charge.  Basic rate  Maintenance -1st year escalation of 4%	Rate  Rate  a period coineries with	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts a per design, drawn 4.12	t of sludge, for ations. MOR  Cum  cer-in-charge  Cum  ling watering a labour charge			
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66	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure of (KPWD SR 16-17,Page No.150,SI No.19.77)  Basic rate  Maintenance for 1st Year:  Maintenance for 1st Year:  Maintenance of lawns or Turfing of slopes (rough grassing) for complete including cost of all materials, scaffolding HOM of mach including implementation of Environmental and Social Safegu specifications and directions of Engineer-in-charge.  Basic rate  Maintenance -1st year escalation of 4%	Rate  Rate  a period coineries with	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts a per design, drawn 4.12	Cum  Cum  Cum  cum  cum  cum  cum  cum			
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666	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and yard manu	Rate  Rate  a period on aircles with aircles	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts a per design, drawn and 10.71 103 4.12 10.71	Cum  Cum  cum  cum  cum  cum  cum  cum			
6	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa M300-1. Spreading of sludge farm yard manure or/ and good early yard manure or/and good early yard manure of (KPWD SR 16-17,Page No.19.77)  Basic rate  Maintenance for 1st Year: Mixing earth and sludge or manure in the required proportion specification SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance -1st year escalation of 4%  Maintenance for 1st Year: Maintenance of lawns or Turfing of slopes (rough grassing) for complete including cost of all materials, scaffolding HOM of mach including implementation of Environmental and Social Safegu specifications and directions of Engineer-in-charge.  Basic rate  Maintenance -1st year escalation of 4%  Add 10% For area wightage	Rate  Rate  a period on aircles with aircles	103 4.12 10.71 117.83 rected by the Office 23.91 0.96 24.87 of one year include the all lead and lifts a per design, drawn and 10.71 103 4.12 10.71	Cum  Cum  cum  cum  cum  cum  cum  cum			

	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.32		156.80	
	Maintenance -1st year escalation of 4%		6.27	
		Rate	163.07	Sqm
	IRRIGATION			
69	Maintenance for 1st Year:			
09	Watering with tanker to landscape area and plants for one year			
	Water Tanker =52 Rs/ Hour, One Year Cost=92 days x 3 hrs x		16836	
	61rs/hr ( 365days-90 days of mansoon=275 days/3 days=92			
	days,consider watering at every 3 days)			
	Mazdoor = 0.5 days x 446.20		11908.48	
	Add 10% For area wightage		1190.848	
	Maintenance -1st year escalation of 4%		1149.78	
		Rate	31085.11	Sqm
70	Maintenance for 1st Year: supply and fixing of irrigation lines such that all the green areas ar of drip irrigation for trees, sub surface for shrubs and lawn areas lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necess commissioning to be installed. (Non SOR Item)	s / ground	d covers and pop	up sprinklers for
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.34		560.00	
	Maintenance -1st year escalation of 4%		22.4	
	•	Rate	582.40	

Assistant Engineer MSCL Mangaluru

**Executive Engineer MSCL Mangaluru** 

General Manager Technical MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 8.2.0 Abstract for Maintenance of Road and Other Work for DPR 3-2nd Year

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
SI.NO.		Onit	Total Qty.	Rate	Amount
	Civil Works Maintenance for 2nd Year:				
1.00	<b>Taking out existing CC interlocking paver blocks</b> from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	Sqm	80.00	80.97	6,478
2.00	Maintenance for 2nd Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)	Cum	3.68	1068.01	3,930
3.00	Maintenance for 2nd Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	25.00	14.26	357
4.00	Maintenance for 2nd Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	10.00	463.32	4,633
5.00	Maintenance for 2nd Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar	Cum	0.35	416.99	146
6.00	(Page No 137,SI No : 18.23)  Maintenance for 2nd Year:  KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km)  (Page No 143,SI No : 19.14)	Cum	137.50	48.71	6,698
7.00	Maintenance for 2nd Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)		137.50	142.56	19,602
8.00	Maintenance for 2nd Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sqm	200.00	7.13	1,426
9.00	Maintenance for 2nd Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	5.00	7009.20	35,046

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
10.00	Maintenance for 2nd Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	18.38	2573.21	,47,296
11.00	Maintenance for 2nd Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No: 4.10)	Cum	54.00	7363.22	3,97,614
12.00	Maintenance for 2nd Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)		540.00	312.44	1,68,718
13.00	Maintenance for 2nd Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3. do with TMT bars Fe500	MT	4.32	84089.02	3,63,265
14.00	Maintenance for 2nd Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	61.25	665.76	,40,778
15.00	Maintenance for 2nd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	12.25	4809.02	,58,910
16.00	Maintenance for 2nd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	17.00	4371.84	,74,321

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
17.00	Maintenance for 2nd Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	30.63	6848.82	2,09,779
18.00	Maintenance for 2nd Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	500.00	124.20	,62,100
19.00	Maintenance for 2nd Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	500.00	393.23	1,96,615
20.00	Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	1.55	19125.53	,29,645
21.00	Maintenance for 2nd Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1.95	500.15	,,975
22.00	Maintenance for 2nd Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)		0.83	500.15	,,415
23.00	Maintenance for 2nd Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-incharge.	Rmt	100.00	116.42	11,642
24.00	Maintenance for 2nd Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	980.00	95.04	,93,139
25.00	Maintenance for 2nd Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	10.00	990.36	9,904

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
26.00	Maintenance for 2nd Year: Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item)	Nos.	10.00	3780.00	,37,800
27.00	Maintenance for 2nd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line.The rate shall include all jointing materials,testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016-17)	Rmt	20.00	326.40	6,528
28.00	Maintenance for 2nd Year: KSRB 11-18-17.1: 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. (PWD SR 2015-16,P.No.86, SI.No.12.89)		10.00	986.04	9,860
29.00	Maintenance for 2nd Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	10.00	5966.14	59,661
30.00	Maintenance for 2nd Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.  (Market Rate)	Rmt	50.00	2131.23	1,06,562
31.00	Maintenance for 2nd Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	50.00	1155.84	,57,792
32.00	Maintenance for 2nd Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)		34.00	1083.24	36,830
33.00	Maintenance for 2nd Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  ((Market rate)		34.00	2102.76	71,494
34.00	Maintenance for 2nd Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	10.00	783.35	7,834

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
35.00	Maintenance for 2nd Year: Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.6)	Sqm	170.00	1254.53	2,13,270
36.00	Maintenance for 2nd Year:  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 30mm 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. (Non SOR Item)	Sqm	27.00	984.96	26,594
37.00	Maintenance for 2nd Year:  Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.7)	Sqm	300.00	1323.43	3,97,029
38.00	Maintenance for 2nd Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	6.00	9312.73	55,876
39.00	Maintenance for 2nd Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	3.20	10408.07	33,306
40.00	Maintenance for 2nd Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	50.00	343.33	17,167
41.00	Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	25.50	509.65	12,996
42.00	Maintenance for 1st Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	2.00	66096.00	1,32,192

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
43.00	Maintenance for 2nd Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00	4860.00	4,860
44.00	Maintenance for 2nd Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ), with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	0.30	108000.00	32,400
45.00	Maintenance for 2nd Year:  Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-incharge.	Cum	943.74	193.32	1,82,444
46.00	Maintenance for 2nd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	58.53	98.13	5,744
47.00	Maintenance for 2nd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Debris	Cum	9.38	98.60	,925
	Electrical Works				
48.00	Maintenance for 2nd Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1.00	1398.60	1,399
49.00	Maintenance for 2nd Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.	0.00	18487.44	,0
50.00	Maintenance for 2nd Year: 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)	Nos.	1.00	13413.60	13,414
51.00	Maintenance for 2nd Year: 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, icluding 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)	Nos.	1.00	7989.84	7,990

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
52.00	Maintenance for 2nd Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1.00	3823.20	3,823
53.00	Maintenance for 2nd Year: 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.	1.00	2592.00	2,592
54.00	Maintenance for 2nd Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00	669.60	1,23,206
55.00	Maintenance for 2nd Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00	12725.55	12,726
56.00	Maintenance for 2nd Year: 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.	1.00	1670.76	1,671
57.00	Maintenance for 2nd Year: 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	600.00	126.36	75,816
58.00	Maintenance for 2nd Year: 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	100.00	88.13	8,813
59.00	Maintenance for 2nd Year: 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	45.00	12.21	549
60.00	Maintenance for 2nd Year: 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	40.00	3.37	135
61.00	Earthing system  Maintenance for 2nd Year: 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	1.00	5940.00	5,940
62.00	Maintenance for 2nd Year: 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	500.00	21.06	10,530
	Landcaping Works SOIL MIXES and Ground Preparation				

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
63.00	Maintenance for 2nd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	9.00	1,361	
64.00	Maintenance for 2nd Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	18.00	242.35	4,362
65.00	Maintenance for 2nd Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	Cum	18.00	122.36	2,202
66.00	Maintenance for 2nd Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	1.20	25.82	31
	Soil preparation of Lawn				
67.00	Maintenance for 2nd Year: Maintenance of lawns or Turfing of slopes (rough grassing) for a period of one year including watering etc complete including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Sqm	382.19	122.36	46,765
	TURF				
68.00	Maintenance for 2nd Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	3.00	169.34	508
	IRRIGATION Maintenance for 2nd Year:				
69.00	Watering with tanker to landscape area and plants for one year	Year	1.00	42402.62	42,403
70.00	tenance for 2nd Year:  y and fixing of irrigation lines such that all the green areas and plants dequately watered; by means of drip irrigation for trees, sub surface for a sand lawn areas / ground covers and pop up sprinklers for lawn areas. pment make - Rainbird or equivalent) aterial used should be comply to BSI code. All the necessary value and prequired for complete commissioning to be installed.  SOR Item)		604.80	1,814	
				Total	,37,20,646

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 8.2.1 M.S. For Maintenance of Road and Other Work forDPR 3-2nd Year

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
	Civil Works						
1.00	Maintenance for 2nd Year: Taking out existing CC interlocking paver blocks from footpath/central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)		1	40	2		80.00
2.00	Maintenance for 2nd Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)		1	3.5	3.5	0.3	3.68
3.00	Maintenance for 2nd Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	1	25			25.00
4.00	Maintenance for 2nd Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	1	20	1	0.5	10.00
5.00	Maintenance for 2nd Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No: 18.23)		1	3	0.5	0.23	0.35
6.00	Maintenance for 2nd Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,SI No: 19.14)	Cum	1.00	55	5	0.5	137.50
7.00	Maintenance for 2nd Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)	Cum	1.00	55	5	0.5	137.50
8.00	Maintenance for 2nd Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)		1.00	40		5	200.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
9.00	Maintenance for 2nd Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	1.00	10	5	0.1	5.00
10.00	Maintenance for 2nd Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI.  (P.No.12, I.No. 4.6 of PWD SR 2015-16)		10.00	3.5	3.5	0.15	18.38
11.00	Maintenance for 2nd Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications.  (Page No 13,SI No: 4.10)	Cum	1.00	300	0.2	0.9	54.00
12.00	Maintenance for 2nd Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)	Sqm	2.00	300		0.9	540.00
13.00	Maintenance for 2nd Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3.	MT	1.00	4.32			4.32
14.00	Maintenance for 2nd Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	10.00	3.5	3.5	0.5	61.25
15.00	Maintenance for 2nd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	10.00	3.5	3.5	0.1	12.25

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
16.00	Maintenance for 2nd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)		1.00	85	2	0.1	17.00
17.00	Maintenance for 2nd Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form or paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	10.00	3.5	3.5	0.25	30.63
18.00	Maintenance for 2nd Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)		1.00	500			500.00
19.00	Maintenance for 2nd Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	1.00	500			500.00
20.00	Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).  (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	1	15	0.103		1.55
21.00	Maintenance for 2nd Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.0279		1.95
22.00	Maintenance for 2nd Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.0118		0.83

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
23.00	Maintenance for 2nd Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Rmt	100				100.00
24.00	Maintenance for 2nd Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	1	3500		0.28	980.00
25.00	Maintenance for 2nd Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	10.00				10.00
26.00	Maintenance for 2nd Year: Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item)	Nos.	10.00				10.00
27.00	Maintenance for 2nd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	Rmt	1.00	20.00			20.00
28.00	Maintenance for 2nd Year: KSRB 11-18-17.1: 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. ( PWD SR 2015-16,P.No.86, SI.No.12.89)	Nos.	1.00	10			10.00
29.00	Maintenance for 2nd Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	1	10.00			10.00
30.00	Maintenance for 2nd Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.  (Market Rate)	Rmt	1	50			50.00
31.00	Maintenance for 2nd Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	1	50			50.00
32.00	Maintenance for 2nd Year:  Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  (Market rate)	Nos.	34				34.00
33.00	Maintenance for 2nd Year:  Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  (Market rate)	Nos.	34				34.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
34.00	Maintenance for 2nd Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete. (Market Rate)	Rmt	1	10			10.00
35.00	Maintenance for 2nd Year:  Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.6)	Sqm	1	85	2		170.00
36.00	Maintenance for 2nd Year: 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 30mm 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. (Non SOR Item)	Sqm	1.00	90	0.3		27.00
37.00	Maintenance for 2nd Year: Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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. (Page No 101,SI No: 14.7)	Sqm	1.00	200	1.5		300.00
38.00	Maintenance for 2nd Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page	Cum	2.00	8	2.5	0.15	6.00
39.00	Maintenance for 2nd Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen		4.00	2.5	8	0.04	3.20
40.00	Maintenance for 2nd Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	50.00				50.00
41.00	Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	1.00	170	0.15		25.50

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
42.00	Maintenance for 2nd Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	2.00				2.00
43.00	Maintenance for 2nd Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00				1.00
44.00	Maintenance for 2nd Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	1.00	0.3			0.30
45.00	Maintenance for 2nd Year:  Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Cum	2.00	6741	0.7	0.1	943.74
46.00	Maintenance for 2nd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	1.00	58.53			58.53
47.00	Maintenance for 2nd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Debris	Cum	1.00	9.38			9.38
48.00	Electrical Works  Maintenance for 2nd Year: Dismantling, removal, transportation to client's storage place existing lighting poles (Non SOR Item)	Nos.	1				1.00
49.00	Maintenance for 2nd Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.					0.00
50.00	Maintenance for 2nd Year: 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)	Nos.	1				1.00
51.00	Maintenance for 2nd Year: 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, icluding 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)	Nos.	1				1.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
52.00	Maintenance for 2nd Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1				1.00
53.00	Maintenance for 2nd Year: 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.	1				1.00
54.00	Maintenance for 2nd Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00				184.00
55.00	Maintenance for 2nd Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00				1.00
56.00	Maintenance for 2nd Year: 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	Nos.	1.00				1.00
	Electrical SOR- 6.16.5)						
57.00	Maintenance for 2nd Year: 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	1	600.00			600.00
58.00	Maintenance for 2nd Year: 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	1	100.00			100.00
59.00	Maintenance for 2nd Year: 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	45				45.00
	Maintenance for 2nd Year: 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	40				40.00
61.00	Earthing system  Maintenance for 2nd Year: 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	1				1.00
	Maintenance for 2nd Year: 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	1	500			500.00
	Landcaping Works						
	SOIL MIXES and Ground Preparation						

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
63.00	Maintenance for 2nd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)		1	100	0.6	0.15	9.00
64.00	Maintenance for 2nd Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	3	100	0.6	0.1	18.00
65.00	Maintenance for 2nd Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)		3	100	0.6	0.1	18.00
66.00	Maintenance for 2nd Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	3	100	0.04	0.1	1.20
	Soil preparation of Lawn						
67.00	Maintenance for 2nd Year: Maintenance of lawns or Turfing of slopes (rough grassing) for a period of one year including watering etc complete including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-	Sqm	1.00	382.19			382.19
	TURF						
68.00	Maintenance for 2nd Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	1	5	0.6		3.00
	IRRIGATION						
69.00	Maintenance for 2nd Year: Watering with tanker to landscape area and plants for one year	Year					1.00
70.00	Maintenance for 2nd Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	1	5	0.6		3.00

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 8.2.2 R.A. For Maintenance of 2nd Year - DPR 3

1	etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA					
	and stacking of serviceable material within 50 metre lead attached)	iu as per direction	oi Engineer	-in-Charge.(		
			00.40	I		
	Basic rate  Maintenance 2nd year acceletion of 89/		68.16			
	Maintenance- 2nd year escalation of 8%		5.45 7.36			
	Add 10% For area weightage (Mangalore City)	Poto	80.97			
		Rate	00.97	Sqiii		
	Maintenance for 2nd Year:					
	KSRRB M200.Dismantling of cement concrete paver	ent by mechanic	al means u	isina pueuma		
	tools, breaking to pieces not exceeding 0.02 cum in volun					
2	disposal of dismantled material stacking serviceble and uns					
۷	specifications.MORTH specification No.202.(Including trans					
	5km-Extra)	sporting charges,io	ading and di	iloading for it		
	(Page No 138,SI No : 18.47)					
	Basic rate		900	<u> </u>		
			899			
	Maintenance- 2nd year escalation of 8%		71.92			
	Add 10% For area weightage (Mangalore City)	D-1-	97.09			
		Rate	1068.01	Cum		
	Maintenance for 2nd Year:					
	KSRRB M200-Dismantaling of kerb Stone and Channel KS	DDD MOOD OF Dies	mantling Karl	h stone by		
_				o storie by		
3	Manual means and disposal of dismantled materials with al	i ilits and complete	as per			
	specifications.MORTH Specification No.202.					
	(Page No.139,S.I.No.18.49)			1		
	Basic rate		12.00			
	Maintenance- 2nd year escalation of 8%		0.96			
	Add 10% For area weightage (Mangalore City)		1.3			
		Rate	14.26	Rmt		
	Maintenance for 2nd Year:					
	KSRRB M200-13.1. Dismantling of existing structures li					
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood	work, steel work, ir	ncluding T&P	and scaffold		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp	work, steel work, ir osal of unserviceal	ncluding T&P	and scaffold and stacking		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific	work, steel work, in osal of unserviceal cations. II. By Me	ncluding T&P ble material a echanical Me	and scaffold and stacking ans. A. Cem		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp	work, steel work, in osal of unserviceal cations. II. By Me	ncluding T&P ble material a echanical Me	and scaffold and stacking tans. A. Cem		
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4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specif Concrete Grade M-15 &M-20. MORTH Specification No. 20	work, steel work, in osal of unserviceal cations. II. By Me	ncluding T&P ble material a echanical Me -19,18.20,Pa	and scaffold and stacking ans. A. Cem		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate	work, steel work, in osal of unserviceal cations. II. By Me	ncluding T&P ble material a echanical Me 19,18.20,Pag 390	o and scaffold and stacking ans. A. Cem ge No.137)		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%	work, steel work, in osal of unserviceal cations. II. By Me	ncluding T&P ble material a echanical Me -19,18.20,Pag 390 31.2	o and scaffold and stacking ans. A. Cemo ge No.137)		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specif Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)	work, steel work, ir osal of unserviceal ications. II. By Me 02 (KPWD SOR 18-	ncluding T&P ble material a echanical Me 19,18.20,Pag 390 31.2 42.12	o and scaffoldi and stacking t ans. A. Cemo ge No.137)		
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4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures li	work, steel work, ir osal of unserviceal ications. II. By Me 02 (KPWD SOR 18-	ncluding T&P ble material a echanical Me 19,18.20,Pag 390 31.2 42.12 463.32 es, retaining	o and scaffold and stacking ans. A. Cemore Ro.137)  Cum  walls and otl		
4	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures li structure comprising of masonary, cement concrete, wood	work, steel work, ir osal of unserviceal ications. II. By Me 02 (KPWD SOR 18-	ncluding T&P ble material a echanical Me 19,18.20,Pag 390 31.2 42.12 463.32 es, retaining ncluding T&P	o and scaffold and stacking ans. A. Cemore Repeated and Scaffold and Scaffold and Scaffold and Scaffold		
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5	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures li structure comprising of masonary, cement concrete, wood	work, steel work, ir osal of unserviceal ications. II. By Me 22 (KPWD SOR 18-Rate Rate work, steel work, ir osal of unserviceal	ncluding T&P ble material a echanical Me 19,18.20,Pag 390 31.2 42.12 463.32 es, retaining ncluding T&P	and scaffold and stacking ans. A. Cemge No.137)  Cum  walls and other and scaffold		
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	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures li structure comprising of masonary, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specificati i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage	work, steel work, ir osal of unserviceal ications. II. By Me 22 (KPWD SOR 18-  Rate  Recomplete the control of	acluding T&P ble material acchanical Me 19,18.20,Pag 390 31.2 42.12 463.32 es, retaining acluding T&P ble material acceptance accept	cum		
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5	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures listructure comprising of masonary, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specificati i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage  Maintenance for 2nd Year:  KSRRB M300-14. Excavation for roadwork in all types capacity including cutting and loading in tippers,trimming	work, steel work, ir osal of unserviceal ications. II. By Me 22 (KPWD SOR 18-  Rate  Rate  ke culverts, bridge lwork, steel work, ir osal of unserviceal ons.  Rate  of soil with hydraug bottom and side	acluding T&P ble material acchanical Me 19,18.20,Pag 390 31.2 42.12 463.32 es, retaining acluding T&P ble material accurate accurate a slopes,in accurate	cum  Cum  walls and other and stacking that is a contained and sta		
5	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures listructure comprising of masonary, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specificati i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No: 18.23)  Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage  Maintenance for 2nd Year:  KSRRB M300-14. Excavation for roadwork in all types capacity including cutting and loading in tippers,trimmin requirements of lines and grades and cross sections,and	work, steel work, ir osal of unserviceal ications. II. By Me 22 (KPWD SOR 18-  Rate  Rate  ke culverts, bridge lwork, steel work, ir osal of unserviceal ons.  Rate  of soil with hydraug bottom and side	acluding T&P ble material acchanical Me 19,18.20,Pag 390 31.2 42.12 463.32 es, retaining acluding T&P ble material accurate accurate a slopes,in accurate	cum  Cum  walls and other and stacking ans. A. Ceming ans. A. Ceming and stacking and other and scaffold and stacking and stacking accordance was accordance where accordance was accordance where accordance accordance was accordance accordance was accordance accordance was accordance accordance accordance was accordance was accordance accor		
	KSRRB M200-13.1. Dismantling of existing structures li structure comprising of masonry, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specific Concrete Grade M-15 &M-20. MORTH Specification No. 20 Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  KSRRB M200-12.1. Dismantling of existing structures listructure comprising of masonary, cement concrete, wood wherever necessary, sorting the dismantled material, disp serviceable material with all lifts complete as per specificati i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage  Maintenance for 2nd Year:  KSRRB M300-14. Excavation for roadwork in all types capacity including cutting and loading in tippers,trimming	work, steel work, ir osal of unserviceal ications. II. By Me 22 (KPWD SOR 18-  Rate  Rate  ke culverts, bridge lwork, steel work, ir osal of unserviceal ons.  Rate  of soil with hydraug bottom and sided transporting dispose	acluding T&P ble material acchanical Me echanical Me e19,18.20,Pag 390 31.2 42.12 463.32 es, retaining acluding T&P ble material accurate	cum  Cum  Cum  Cum  Cum  Cum  Cum  Cum		

(Page No 143,SI No : 19.14)

	Basic rate		41	
	Maintenance- 2nd year escalation of 8%		3.28	
	Add 10% For area weightage (Mangalore City)		4.43	
	Add 10761 of area weightage (Mangalore City)	Rate	48.71	
		Nate	40.71	Cuili
	Maintenance for 2nd Year:			
7	KSRB 2-4: Refilling available earth around pipe lines, cables in compacting each deposited layer by ramming after watering wi including cost of all labour complete as per specifications.(KPWD 1	th lead ι	upto 50m. and	lift upto 1.5 m.
	Basic rate		120	
	Maintenance- 2nd year escalation of 8%		9.6	
	Add 10% For area weightage (Mangalore City)		12.96	
		Rate	142.56	
		itate	142.50	Ouiii
8	Maintenance for 2nd Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original g 10 tonnes power roller including filling in depression occuring during HOM of machinery complete as per specifications. MORTH / Chap No.149)	g rolling i	ncluding cost of	fall labour,
	Basic rate		6	
	Maintenance- 2nd year escalation of 8%		0.48	
	Add 10% For area weightage (Mangalore City)		0.65	
	J G	Rate		Sqm
				- 1
9	KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with ce 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine a @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well comp foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing comple specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2018-19)			
	Basic Rate		5900	
	Maintenance- 2nd year escalation of 8%		472	
	Add 10% For area weightage (Mangalore City)	<b>D</b> 4	637.2	
		Rate	7009.20	Cum
10	Maintenance for 2nd Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table of granular sub-base by providing Coarse graded crushed ston material, speading in uniform layers with motor grader on prepared with rotavator at OMC, and compacting with vibratory roller to achie MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2018-19)	e aggreo I surface	gates of granite, mixing by mix	e / trap / basalt in place method
	Basic Rate		2166	
	Maintenance- 2nd year escalation of 8%		173.28	
	Add 10% For area weightage (Mangalore City)		233.93	
		Rate	2573.21	
11	machinery,curing,complete but excluding cost of reinforcement as p (Page No 13,Sl No : 4.10)	tal coars -2008 at dation fo ilasters, ncluding	e aggregate @ machine mixed or footings, ped columnspillars cost of I	0.47 cum with d,concrete laid in lastals, retaining
	Basic Rate		6198	
	Maintenance- 2nd year escalation of 8%		495.84	
	Add 10% For area weightage (Mangalore City)		669.38	
		Rate	7363.22	Cum
			1	<u> </u>

	Maintenance for 2nd Year:			
	KSRB 4.6.1 Providing and removing centering, shuttering, strutting		-	
40	for foundations, footings, bases of columns for mass concrete	e includir	ng cost of all	materials, labour
12	complete as per specifications.			
	Specification No. KSB 4.6.2			
	(Page No 15,SI No : 4.28)			
	Basic Rate		263	
	Maintenance- 2nd year escalation of 8%		21.04	
	Add 10% For area weightage (Mangalore City)		28.4	
	3 3 \ 0 7/	Rate	312.44	Sgm
				•
	Maintenance for 2nd Year:			•
	KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work inc	luding		
	straighting, cutting, bending, hooking, placing in position, lapping and/o		g wherever requ	uired,tying with
13	binding wire and anchoring to thr adjoing members wherever neces	sary con	plete as per de	esign
10	(laps,hooks and wastage shall not be measured and paid) cost of n	naterials,	labour,HOM of	machinary
	complete as per specifications. Specification No. KBS4.6.3.			
	do with TMT bars Fe500			
	Basic Rate		70782	Ι
-	Maintenance- 2nd year escalation of 8%		5662.56	
	Add 10% For area weightage (Mangalore City)		7644.46	
	Aud 10/0 FUI alea weightage (Mangalule City)	Rate	84089.02	
		Nate	04009.02	IVI I
	Maintenance for 2nd Year:	İ	l	l
	KSRRB M300-Construction of Subgrade. KSRRB M300-55. Constr	uction of	cub grada with	approved
	material Gravel/Murrum with all lifts & leads, transporting to site, sp			
4.4				
14	compacted to meet requirement of Table No. 300-2 complete as pe			
	watering charges & compaction by vibratory rollercompaction by vib	oratory to	iller to 97% or p	roctors density)
	MORTH Specification No. 305			
	Basic Rate		540	<u> </u>
	Maintenance- 2nd year escalation of 8%		513 41.04	
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding		41.04	
	loading and unloading MORTH-100/Chapter 1-case 1-Surface		E4 0	
	Road)=2.0 Rs/ Tkm x 1.28 T x 20km		51.2	
	Sub Total		605.24	
	Add 10% For area weightage (Mangalore City)		60.52	
		Rate	665.76	
		Ruto	000.10	Juni
	Maintenance for 2nd Year:			
	KSRRB M600-1.Construction of dry lean cement concrete mix M15	with 1.5	·10 OPC ceme	nt @160Kas with
	25mm and down size graded granite/trap/basalt metal coarse aggi			
	0.58cum Sub-base over prepared sub grade with (coarse and			
	aggregate cement ration not to excee 15:1. Aggregate gradation			
15	cement content to be determined during trail length construction			
	10Mpa at 7 days, mixed in a batching plant, transported to			
	sensor, compacting with 8-10 tonnes double drum vibratory rolle			
	specifications. Morth specification No.601	), , i i i i i i i i i i i i i	g and canng t	somplete as per
	(Page No 176,SI No : 22.1)			
	,	1	Ī	T
	Basic Rate		4048	
	Maintenance- 2nd year escalation of 8%		323.84	
	Add 10% For area weightage (Mangalore City)		437.18	
		Rate	4809.02	Cum
		]		
	Maintenance for 2nd Year:			<b>-</b>
	KSRRB M600-1.Construction of dry lean cement concrete mix M15			-
	25mm and down size graded granite/trap/basalt metal coarse agg			
	0.58cum Sub-base over prepared sub grade with (coarse and			
16	aggregate cement ration not to excee 15:1. Aggregate gradation			
'0	cement content to be determined during trail length construction			
	10Mpa at 7 days, mixed in a batching plant, transported to site, N			acting with palte
	compactor, finishing and curing complete as per specifications. Mort	h specific	cation No.601	
	(RA attached)			
		1	I	I
	Basic Rate		3680	

	Maintenance- 2nd year escalation of 8%		294.4	
	Add 10% For area weightage (Mangalore City)		397.44	
	That 10701 of area weightage (Mangalore Oity)	Rate	4371.84	
		110.00		
17	Maintenance for 2nd Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,pl prepared sub base with 25mm and down size graded granite met at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fir in a batching and mixing plant as per approved mix design,trans spread,compacted and finished in a continuos operation inclu construction and longitudinal joints,including groove cutting chi sealent primer, joints sealant, debonding strip, dowel bars at approved, curing compound,finishing to lines and grades as pe MORTH specification No.602.do with M40 (420Kg per cum Cemer (Page No 176,SI No : 22.2.2)	tal coarse and aggregate ported to siding provisings, joints 4.5m inteer drawing of	aggregate with re conforming ite,laid with a sion of contra filler,separat rvals, tie rod complete as p	n superplastisizer to IS:383) mixed fixed form paver action, expansio, ion memberane, admixtures as per sprcifications
	Basic Rate		5765	1
	Maintenance- 2nd year escalation of 8%		461.2	
	Add 10% For area weightage (Mangalore City)		622.62	
	That 10701 of allow Holginago (Mangaloro Olty)	Rate	6848.82	
18	to required width, sand blasting the groove face if recommended groove with air compressor, insertion of debonding strip, primin manufacturer recommends and pouring the sealant all complete ir (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore, Refer	g the sides	s of the seala Iterial, manpov	ant if the sealant wer
	Sr.No.2		115	
	Maintenance- 2nd year escalation of 8%		9.2	
		Rate	124.2	Rmt
	Maintenance for 2nd Year:			
19	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1 Basic Rate Maintenance- 2nd year escalation of 8% Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:	e as per sp	331 26.48 35.75 393.23	orth specification
20	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme including making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)	Rate  stone of Ment mortar as except at uired compared for paying the stone of the	331 26.48 35.75 393.23 -20 grade cer 1:3 (1 cement sharp curve solete etc. as	Rmt ment concrete in: 3 coarse sand), shall not to more
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme including making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis	Rate  stone of Ment mortar as except at uired compared for paying the stone of the	331 26.48 35.75 393.23  -20 grade cer 1:3 (1 cement: sharp curve solete etc. as ment).	Rmt  ment concrete in: 3 coarse sand), shall not to more per direction of
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme including making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate	Rate  stone of Ment mortar as except at uired compared for paying the stone of the	331 26.48 35.75 393.23  -20 grade cer 1:3 (1 cement: sharp curve solete etc. as ment).	Rmt  ment concrete in: 3 coarse sand), shall not to more per direction of
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme including making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis	Rate  Stone of Ment mortar as except at uired compared for payors).	331 26.48 35.75 393.23 2-20 grade cer 1:3 (1 cement: sharp curve solete etc. as ment).	Rmt  ment concrete in: 3 coarse sand), shall not to more per direction of
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme including making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate	Rate  stone of Ment mortar as except at uired compared for paying the stone of the	331 26.48 35.75 393.23  -20 grade cer 1:3 (1 cement: sharp curve solete etc. as ment).	Rmt  ment concrete ir: 3 coarse sand) shall not to more per direction of
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme including making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate	Rate  stone of Ment mortar s except at uired compared for payors).  Rate  the drawin of all mar	331 26.48 35.75 393.23  -20 grade cer 1:3 (1 cement: sharp curve solete etc. as ment).  17708.82 1416.71 19125.53	Rmt  ment concrete in: 3 coarse sand), shall not to more per direction of Cum
20	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with cemincluding making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost machinery, loading, unloading, lead and lift, transportation etc., comp (Page No 25, Sl No: 5.3)  Basic rate	Rate  stone of Ment mortar s except at uired compared for payors).  Rate  the drawin of all mar	331 26.48 35.75 393.23  -20 grade cer 1:3 (1 cement: sharp curve solete etc. as ment).  17708.82 1416.71 19125.53	Rmt  ment concrete in: 3 coarse sand), shall not to more per direction of
20	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contractio joints in concrete pavement using epoxy mortar concrete complete No.3005.1  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with cemincluding making joints with or without grooves (thickness of joint than 5mm), including making drainage opening wherever req Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)  Rate Arrived as per Rate analysis  Basic Rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Providin and fixing pre cast solid concrete Kerb stones as per Jointed with CM 1:3 and finishing cutting, including cost machinery,loading,unloading,lead and lift,transportation etc.,comp (Page No 25,Sl No : 5.3)	Rate  stone of Ment mortar s except at uired compared for payors).  Rate  the drawin of all mar	331 26.48 35.75 393.23  l-20 grade cer 1:3 (1 cement sharp curve solete etc. as ment).  17708.82 1416.71 19125.53	Rmt  ment concrete in: 3 coarse sand), shall not to more per direction of  Cum  of CC 1:2:4 and nire charges of

		Rate	500.15	Cum		
		itate	300.13	Ouiii		
22	Maintenance for 2nd Year:  Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)					
	Basic rate		421			
	Maintenance- 2nd year escalation of 8%		33.68			
	Add 10% For area weightage		45.47			
		Rate	500.15	Cum		
23	Maintenance for 2nd Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.					
	Basic rate		98			
	Maintenance- 2nd year escalation of 8%		7.84			
	Add 10% For area weightage		10.58			
		Rate	116.42			
24	on new plastered concrete surfaces, with materials, labour complete 8 (Page No 182,SI No : 24.1)	te as per		MORTH Chapter		
	Basic Rate		80			
	Maintenance- 2nd year escalation of 8%		6.4			
	Add 10% For area weightage (Mangalore City)	Rate	8.64 <b>95.04</b>			
		Nate	95.04	Sqiii		
25	Maintenance for 2nd Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)					
	Rate Arrived as per Rate analysis Basic Rate		917	<u> </u>		
	Maintenance- 2nd year escalation of 8%		73.36			
	Maintenance 2nd year escalation of 576	Rate	990.36			
			000.00			
26	Maintenance for 2nd Year: Providing and Fixing Recessed Inception chamber cover - size: (1. Ductile Iron (NON SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	250 x 125	, 			
	Sr.No.15		3500.00			
	Maintenance- 2nd year escalation of 8%		280			
		Rate	3780.00	Nos.		
27	Maintenance for 2nd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the and grade as indicated in drawings/design and hydraulically testing jointing materials,testing apparatus and water for testing etc as d No.41,Item No.7,KUWSDB SOR 2016-17)	of the pi	pe line.The rate	e shall include all		
	Basic Rate		297			
_	Maintenance- 2nd year escalation of 8%		23.76			
	Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)		5.64			
	\gaioro onj/	Rate	326.4	Rm		

	Maintenance for 2nd Year:					
	KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100m					
28	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 specification (PWD SR 2018-19, P.No.86, SI.No.12.89)	ons Spec	cification No. KE	3S 11.1.10.		
	Basic Rate		830			
	Maintenance- 2nd year escalation of 8%		66.4			
	Add 10% For area weightage (Mangalore City)		89.64			
		Rate	986.04	Nos.		
29	Maintenance for 2nd Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.7 cement concrete pipe duct, 300 mm dia, across the road (new cor in cuts and toe of slope to toe of slope in fills, constructing head was of granular material over top and sides of RCC pipe as per IRC:98 granular material free of rock pieces, outer to outer distance of minimum450 mm in case of double and triple row ducts, joints to be above higher than ground level to prevent entry of water and dir drawings complete as per specifications. Case - I: Single row for o (KPWD SOR 18-19, Item No.24.34, Pg.No.188)	nstruction alls at bot 3-1997, b pipe at le e made le t, all as p	n), extending from the ends, providing the ends, providing the ends of the end	om drain to drain ng a minimum fill on thick layer of f pipe subject to rt level of duct to		
		I	5022	I		
	Basic Rate Maintage 2nd year acceletion of 8%		5022			
-	Maintenance- 2nd year escalation of 8%		401.76			
	Add 10% For area weightage (Mangalore City)	Data	542.38			
		Rate	5966.14	KM		
	Maintenance for 2nd Year:					
30	dimensional ratio of 13.5, Deflection not greater than 5% when exposor under the over burden soil presuure and other physical proportion NEMA TC7. The expected service life of HDPE pipe conduits a years.  (Market Rate)	perties co	omforming to A	STMF 2160 and		
	Basic Rate		2300			
	Deduct GST @18%		-414			
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123)		78			
	Add 12% For area weightage (Mangalore City)		9.36			
	Sub Total		1973.36			
	Maintenance- 2nd year escalation of 8%		157.87			
	Indirection 2nd year occuration of 676	Rate	2131.23			
		itate	2101.20	TXIII		
31	Maintenance for 2nd Year: Providing and laying Dia 160mm HDPE Power Duct with Sidimensional ratio of 13.5, Deflection not greater than 5% when exposor under the over burden soil presuure and other physical proportion NEMA TC7. The expected service life of HDPE pipe conduits a years. (Market Rate)	sed to th	e normal opera omforming to A	ting temparature STMF 2160 and		
	Basic Rate		1215			
	Deduct GST @18%		-218.7			
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123)		66			
	Add 12% For area weightage (Mangalore City)		7.92			
	Sub Total		1070.22			
	Maintenance- 2nd year escalation of 8%		85.62			
		Rate	1155.84	Rm		
32	Maintenance for 2nd Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate)	to be pla				
	Basic Rate		1003			
	Maintenance- 2nd year escalation of 8%		80.24			
		Rate	1083.24	NOS.		
ĺ		[				

33	Maintenance for 2nd Year:  Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter.  Spacers shall be made of ABS raw material.  (Market rate)				
	,		4047		
	Basic Rate		1947		
	Maintenance- 2nd year escalation of 8%		155.76		
		Rate	2102.76	Nos.	
34	Maintenance for 2nd Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lul comforming to ASTMF 2160 and /or equivalent indian standard loading and unloading at both destination and rolling, lowering into to pipe etc. Complete.  (Market Rate)	d and co	nveying to wo	rk site including	
	Basic Rate		685		
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item				
	No.50,Pg.No.123)		36		
	Add 12% For area weightage (Mangalore City)		4.32		
	Sub Total		725.32		
	Maintenance- 2nd year escalation of 8%		58.03		
	Invalinternatives 2 nd year escalation of 070	Doto		Dm	
		Rate	783.35	KIII	
35	of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqr 30mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compactifure 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 per specifications.  (Page No 101,SI No : 14.6)				
		ı	T	T	
	Basic rate		1056.00		
	Maintenance- 2nd year escalation of 8%		84.48		
	Add 10% For area weightage (Mangalore City)		114.05		
		Rate	1254.53	Sqm	
				•	
36	Maintenance for 2nd Year:  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 w minimum compressive strength of 281 kg per sqm over 30mm thick sand bed (average thickness) an compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath 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.  (Non SOR Item)				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12		912.00		
	Maintenance- 2nd year escalation of 8%		72.96		
<b></b>		Rate	984.96		
		Nate	304.30	oqiii	
37	Maintenance for 2nd Year:  Providing and laying heavy duty cobble stones 75mm thick, using of blocks of approved size, shape and colour with a minimum comp 30mm thick sand bed (average thickness) and compacting with force thereby forcing part of sand underneath to come up in be surface joints into its final level, including cost of materials, labour per specifications.	oressive : plate vib tween jo	strength of 281 rator having 3 ints, final com	kg per sqm over tons compaction paction of paver	
	(Page No 101,SI No : 14.7)	ı	T	T	
	Basic rate		1114		
	Maintenance- 2nd year escalation of 8%		89.12		
	Add 10% For area weightage (Mangalore City)		120.31		
		Rate	1323.43	Sqm	

Maintenance for 2nd Year:  KSRRB M500-17. Providing and laying dense graded bituminous macadam using crush specified grading, premixed with VG30 grade bituminous binder and, transporting the hot laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory a to achieve the desired compaction as per MORTH table 500-10 complete in all respects specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with s (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 18-19,S.I.No.21.17.1,Page No.163)  Basic rate  7839  Maintenance- 2nd year escalation of 8%	mix to work site nd tandem rollers complete as pe						
specified grading, premixed with VG30 grade bituminous binder and, transporting the hot laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory at to achieve the desired compaction as per MORTH table 500-10 complete in all respects specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with second to me to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 18-19,S.I.No.21.17.1,Page No.163)  Basic rate  7839  Maintenance- 2nd year escalation of 8%	mix to work site nd tandem rollers complete as pe						
laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory a to achieve the desired compaction as per MORTH table 500-10 complete in all respects specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with s (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 18-19,S.I.No.21.17.1,Page No.163)  Basic rate  7839  Maintenance- 2nd year escalation of 8%  627.12	nd tandem rollers complete as pe						
to achieve the desired compaction as per MORTH table 500-10 complete in all respects specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with s (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 18-19,S.I.No.21.17.1,Page No.163)  Basic rate  Raintenance- 2nd year escalation of 8%  627.12	complete as pe						
specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with s (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 18-19,S.I.No.21.17.1,Page No.163)  Basic rate  Maintenance- 2nd year escalation of 8%  Table 500-10 complete in all respects specification as per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specification in all respects specifications. The specification is per MORTH table 500-10 complete in all respects specification in all respects sp							
(50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 18-19,S.I.No.21.17.1,Page No.163)         Basic rate       7839         Maintenance- 2nd year escalation of 8%       627.12	ensor paver Gr-I						
Basic rate 7839 Maintenance- 2nd year escalation of 8% 627.12							
Maintenance- 2nd year escalation of 8% 627.12							
Maintenance- 2nd year escalation of 8% 627.12							
Maintenance- 2nd year escalation of 8% 627.12							
·							
Add 10% For area weightage (Mangalore City) 846.6							
Rate 9312.73							
1.4.0 00.2.1	Juni						
Maintenance for 2nd Year:							
KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix pla	nt lising criished						
aggregates of specified grading, premixed with bituminous binder and filler, transporting the							
site, laying with a paver finisher to the required grade, level and alignment, rolling with							
vibratory and tandom remove to demove the deemed compaction as per interest repositi							
500.9 complete in all respects complete as per specifications. MORTH Specification No.							
TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitur	nen						
Basic rate 876	T						
Maintenance- 2nd year escalation of 8% 700.88							
Add 10% For area weightage (Mangalore City)  946.19							
Rate 10/8 For area weightage (Mangalore City) 946.13							
Rate 10406.0	Cum						
Maintenance for 2nd Year:							
KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road							
mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense refle							
concrete of asphalic surface by drilling hole 30 min upto a depth of 60 min and bed							
bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifica	tions						
Basic rate 289	)						
Maintenance- 2nd year escalation of 8% 23.12							
Add 10% For area weightage (Mangalore City)  31.2							
Rate 343 3	Nos						
Rate 343.33	Nos.						
	Nos.						
Maintenance for 2nd Year:							
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be	ads on Concrete						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick includes the compound of the compoun	ads on Concrete						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area, thickness of 2.5mm is exclusive to the square of the squa	ads on Concrete ling reflectorising of surface applied						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area, thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level, uniform and free from	ads on Concrete ling reflectorising of surface applied						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area, thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level, uniform and free from complete as per specifications.MORTH specification No.803	ads on Concrete ling reflectorising of surface applied						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area, thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level, uniform and free from	ads on Concrete ling reflectorising of surface applied						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area, thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level, uniform and free from complete as per specifications.MORTH specification No.803	ads on Concrete ling reflectorising of surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	ads on Concrete ling reflectorising of surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusived glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803  (Page No 192,SI No: 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  34.33	ads on Concrete ling reflectorising of surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  46.33	ads on Concrete ling reflectorising of surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  46.33	ads on Concrete ling reflectorising of surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive the glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803  (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Rate  509.68	ads on Concrete ling reflectorising of surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level, uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:	ads on Concrete ling reflectorising of surface applied streak and holes of the surface applied streak and holes of the surface applied streak and holes						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road	ads on Concrete ling reflectorising of surface applied streak and holes of the surface applied streak and holes of the surface applied streak and holes						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8% Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area, thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level, uniform and free from complete as per specifications. MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  61206	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate Maintenance- 2nd year escalation of 8% Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate Maintenance- 2nd year escalation of 8% 4896	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive the glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance- 2nd year escalation of 8%  Rate Approved as per EOI by MD MSCL Mangalore,Refer  Pate 66004	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate 429  Maintenance- 2nd year escalation of 8% 34.33  Add 10% For area weightage (Mangalore City) 46.33  Maintenance for 2nd Year:  420  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate 61200  Maintenance- 2nd year escalation of 8% 4890  Maintenance- 2nd year escalation of 8% 4890	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive the glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance- 2nd year escalation of 8%  Rate Approved as per EOI by MD MSCL Mangalore,Refer  Pate 66004	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive the glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance- 2nd year escalation of 8%  Rate Approved as per EOI by MD MSCL Mangalore,Refer  Pate 66004	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance- 2nd year escalation of 8%  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1  Maintenance for 2nd Year:  Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by English an	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works  Nos.						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8% Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45. Baisc rate  Maintenance- 2nd year escalation of 8% Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1  Maintenance for 2nd Year:  Maintenance for 2nd Year:	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works  Nos.						
Maintenance for 2nd Year:  Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance- 2nd year escalation of 8%  Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance- 2nd year escalation of 8%  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1  Maintenance for 2nd Year:  Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engless.	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works  Nos.						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick incluing glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate  Maintenance-2nd year escalation of 8% Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  42 Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance-2nd year escalation of 8% Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1  Maintenance for 2nd Year:  Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Eng (NON SOR Item)	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works  Nos.						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick included glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)  Basic Rate	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works  Nos.						
Maintenance for 2nd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Be Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick incluing glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive glass beads as per IRC:35.The finished surface to be level,uniform and free from complete as per specifications.MORTH specification No.803 (Page No 192,SI No: 24.57)  Basic Rate  Maintenance-2nd year escalation of 8% Add 10% For area weightage (Mangalore City)  Maintenance for 2nd Year:  42 Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road BOQ Item No.45.  Baisc rate  Maintenance-2nd year escalation of 8% Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1  Maintenance for 2nd Year:  Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Eng (NON SOR Item)	ads on Concrete ling reflectorising of surface applied streak and holes  Sqm  and Other works  Nos.						

		Rate	4860	Nos.		
		itate	7000	1103.		
44	Maintenance for 2nd Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.26		100000.00			
	Maintenance- 2nd year escalation of 8%		8000			
		Rate	108000	MT		
45	Maintenance for 2nd Year: Excavation and removal of silt and silt mixed with sand in slussy codisposing off the same in spoil bank or on the canal embankment in lead upto 50 m and all lifts. For Desilting of drains and grit chamber scaffolding HOM of machineries with all lead and lifts, labour charg Environmental and Social Safeguards & as per design, drawing, teating the Engineer-in-charge.	n layers a rs includi es includi	s directed etc., ng cost of all m ing implementa	complete with aterials, tion of		
	Basic Rate		179.00			
	Maintenance- 2nd year escalation of 8%		14.32			
		Rate	193.32	Nos.		
46	Maintenance for 2nd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth					
	Earth	2.0x	1.28x10km			
	Baisc rate		25.60			
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)		57.00			
	Sub Total-1		82.60			
	Add 10% For area weightage (Mangalore City)		8.26			
	Sub Total-2		90.86			
	Maintenance- 2nd year escalation of 8%		7.27			
		Rate	98.13	Cum		
47	Maintenance for 2nd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km be Item No 17.4 KSRRB M100-4.1-Debris	eyond init	ial Lead			
	Debris	2.0x	1.30x10Km			
	Baisc rate		26.00			
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)		57.00			
	Sub Total-1		83.00			
	Add 10% For area weightage (Mangalore City)		8.3			
	Sub Total-2		91.30			
	Maintenance- 2nd year escalation of 8%		7.3			
		Rate	98.60	Cum		
48	Lighting Poles  Maintenance for 2nd Year:  Dismantling of pole/ street light standard/ strut embedded in cemen foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	t concret	e			
	Basic Rate		1,295			
	Maintenance- 2nd year escalation of 8%		103.6			
		Rate	1398.6	Nos.		

#### Maintenance for 2nd Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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 49 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. 5.14.7) Basic rate 17118 Maintenance- 2nd year escalation of 8% 1369.44 Rate 18,487.44 Nos. Maintenance for 2nd Year: 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 50 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) Basic rate 12420 Maintenance- 2nd year escalation of 8% 993.6 13,413.60 Nos. Rate Maintenance for 2nd Year: 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, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in 51 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) 7398 Basic rate Maintenance- 2nd year escalation of 8% 591.84 Rate 7.989.84 Nos. Maintenance for 2nd Year: 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 52 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5) Basic rate 3540 Maintenance- 2nd year escalation of 8% 283.2 Rate 3,823.20 Nos. Maintenance for 2nd Year: 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 53 Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2) Basic rate 2400 Maintenance- 2nd year escalation of 8% 192 Rate 2,592 Nos. Maintenance for 2nd Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel 54 including coping/footing of the pole.-8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3) 620 Basic rate Maintenance- 2nd year escalation of 8% 49.6 Rate 670 Nos. **Oudoor Box and Switch Gear**

	Supply, installation, testing and commissioning of outdoor junction lall required accessories and componenets	box for m		
	Price list (Considering 30% discount , 18% GST & 10% profit)		11782.92	
	Maintenance- 2nd year escalation of 8%		942.63	
		Rate	12,726	Nos.
56	Maintenance for 2nd Year: Supply and fixing of miniature circuit breaker on exisiting board using type curve, indicator ON/OFF, energy cross-3 with short circuit breaker sequired confirming to IEC 60898 5- 32A TPN Electrical SOR- 6.16.5)			
	Basic rate		1547	
	Maintenance- 2nd year escalation of 8%		123.76	
	Maintenance Zna year escalation of 070	Rate	1,671	Nos.
		Nate	1,071	1405.
	LT Cable			
57	Maintenance for 2nd Year: Supplying of 1.1 kV LT cable having aluminium conductor PVC insugalvanised, steel strips (except 2C x 10 sq. mm wire armoured) as outer sheathed armoured cable as per IS - 1554 Part 1:1988 & con 4 Core x16 Sq.mm PVC Aluminium Conductor, (Ref Electrical SOR SI No.7.5,7.5.4)	per IS-39	75:1990 and e	xtruded PVC
	Basic rate		117	
	Maintenance- 2nd year escalation of 8%		9.36	
		Rate	126.36	
58	Maintenance for 2nd Year: Supply and drawing flexible multicore cable with electrolyte grade flexing to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	ulation ar	nd sheathed su	
58	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate	ulation ar	nd sheathed sui Group A. 81.6	itable for
58	Supply and drawing flexible multicore cable with electrolyte grade fleconforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	ulation ar	nd sheathed suited for the she	itable for
58	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate	ulation ar	nd sheathed sui Group A. 81.6	itable for
58	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	ulation ar	81.6 6.53 88.13	table for
58	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate	ulation ar	81.6 6.53 88.13 81.31	Rm sizes
58	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	ulation ar or GTP of Rate	81.6 6.53 88.13 ire of following	Rm sizes
58	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate	ulation ar	81.6 6.53 88.13 ire of following	Rm sizes
59	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate	Rate Rate	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following	Rm Sizes Nos.
59	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Rate  Rate  oint for w	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following	Rm sizes Nos.
59	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate	Rate Rate	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following	Rm Sizes Nos.
58 59 60 61	Supply and drawing flexible multicore cable with electrolyte grade flexing conforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance- 2nd year escalation of 8%	Rate  Coint for with the second corrose corros	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following 3.12 0.25 3.37  In the mter boar ive	Rm sizes Nos. Nos.
58 59 60 61	Supply and drawing flexible multicore cable with electrolyte grade flexing to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Chemical Earthing for grounding, conduits, IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the	Rate  Coint for with the second corrose corros	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following 3.12 0.25 3.37  In the mter boar ive capacity, non to	Rm sizes Nos. sizes volume vol
59 60 61	Supply and drawing flexible multicore cable with electrolyte grade fleconforming to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year:  Chemical Earthing for grounding, conduits, IC cut outs and otherequence of the compound which is not t	Rate  Coint for with the second corrose corros	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following 3.12 0.25 3.37  In the mter boar ive capacity,non to	Rm sizes Nos. sizes volume vol
58 59 60 61	Supply and drawing flexible multicore cable with electrolyte grade flexing to Table 3 Class 5 of IS:8130-1984 and vargin PVC insworking voltage up to 1100 V as per IS-694:1990 and conforming to 3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd year escalation of 8%  Maintenance- 2nd Year: Supplying tinned copper lugs and crimping and wiring to terminal per 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)  Basic rate  Maintenance- 2nd year escalation of 8%  Maintenance for 2nd Year: Chemical Earthing for grounding, conduits, IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the	Rate  Coint for with the second corrose corros	81.6 6.53 88.13 ire of following 11.31 0.9 12.21 ire of following 3.12 0.25 3.37  In the mter boar ive capacity, non to	Rm  Sizes  Nos.  Nos.  rdby using exic, weather

	using necessasary suitable size clamps, nails, guttas/spacers etc	c-8 SWG	-	
	(Ref Electrical SOR SI No.7.22.3)			
	Basic rate		19.5	
	Maintenance- 2nd year escalation of 8%		1.56	
		Rate	21.06	Rmt
	Maintenance for 2nd Year:			
63	Supplying and stacking of good earth at site including royalty and measured in stacks will be reduced by 20% for payment).  (Non SOR Item)	d carriage upt	to 5 k.m. lead	complete (ea
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27		140.00	
	Maintenance- 2nd year escalation of 8%		11.2	
		Rate	151.20	Cum
64	Maintenance for 2nd Year: KSRRB M300-Supply at site of work well decayed farm yard mork well decayed farm yard manure, from any available sou including screening and stackin complete as per specification No.152,SI.No.19.90)	ırce, approve	d by the eng	gineer in cha
	Basic rate		204	
	Maintenance- 2nd year escalation of 8%		16.32	
	Add 10% For area weightage		22.03	
		Rate	242.35	Cum
65	KSRRB M300-1. Spreading of sludge farm yard manure or/ and sludge, farm yard manure or/and good earth to be paid for si MORTH Specification No. 307 (KPWD SR 18-19,Page No.150,SI No.19.77)			
	Basic rate		103	
	Maintenance- 2nd year escalation of 8%		8.24	
	Add 10% For area wightage	Rate	11.12 <b>122.36</b>	Cum
66	Maintenance for 2nd Year: Mixing earth and sludge or manure in the required proportion specified (Non SOR item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		23.91	
	Sr.No.28			
	Maintenance- 2nd year escalation of 8%	Rate	1.91 <b>25.82</b>	Cum
		Nate	23.02	Ouiii
	Maintenance for 2nd Year:  Maintenance of lawns or Turfing of slopes (rough grassing) for a complete including cost of all materials, scaffolding HOM of a charges including implementation of Environmental and Social technical specifications and directions of Engineer-in-charge.	machineries v	with all lead	and lifts, lab
67	Basic rate			i
67	Maintenance- 2nd year escalation of 8%		8.24	
67			8.24 11.12	
67	Maintenance- 2nd year escalation of 8%	Rate	8.24	
67	Maintenance- 2nd year escalation of 8% Add 10% For area wightage	Rate	8.24 11.12	
	Maintenance- 2nd year escalation of 8%	Rate	8.24 11.12	
	Maintenance- 2nd year escalation of 8%  Add 10% For area wightage  TURF  Maintenance for 2nd Year:  ZOYSIA JAPONICA ( MAT) (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	Rate	8.24 11.12	Sqm
67	Maintenance- 2nd year escalation of 8% Add 10% For area wightage  TURF  Maintenance for 2nd Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Rate	8.24 11.12 <b>122.36</b>	Sqm
	Maintenance- 2nd year escalation of 8%  Add 10% For area wightage  TURF  Maintenance for 2nd Year:  ZOYSIA JAPONICA ( MAT) (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.32	Rate	8.24 11.12 <b>122.36</b> 156.80	Sqm

	IRRIGATION			
	Maintenance for 2nd Year:			
69	Watering with tanker to landscape area and plants for one year			
	Water Tanker =52 Rs/ Hour,One Year Cost=92 days x 3 hrs x 61rs/hr ( 365days-90 days of mansoon=275 days/3 days=92 days,consider watering at every 3 days)		16836	
	Mazdoor = 0.5 days x 446.20		20525.2	
	Add 10% For area wightage		2052.52	
	Maintenance- 2nd year escalation of 8%		2988.9	
		Rate	42402.62	Year
70	Maintenance for 2nd Year: supply and fixing of irrigation lines such that all the green area means of drip irrigation for trees, sub surface for shrubs and sprinklers for lawn areas. (Equipment make - Rainbird or equivale All material used should be comply to BSI code. All the necessa commissioning to be installed. (Non SOR Item)	lawn area nt)	as / ground cov	vers and pop u
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.34		560.00	
	Maintenance- 2nd year escalation of 8%		44.8	
	·	Rate	604.80	Sam

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

## Name of the Work :- Mangalore Smart City 8.3.0 Abstract for Maintenance of Road and Other Work for DPR 3 - 3rd Year

	8.3.0 Abstract for Maintenance of Road and Other					
Sr.No.	Specification	Unit	Total Qty.	Rate	Amount	
	Civil Works					
1.00	Maintenance for 3rd Year: Taking out existing CC interlocking paver blocks from footpath/central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	Sqm	80.00	83.97	6,718	
2.00	Maintenance for 3rd Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)	Cum	3.68	1107.57	4,076	
3.00	Maintenance for 3rd Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200 26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	25.00	14.78	370	
4.00	Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	10.00	480.48	4,805	
5.00	Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No: 18.23)	Cum	0.35	0.35	432.43	151
6.00	Maintenance for 3rd Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,Sl No: 19.14)	Cum	137.50	50.51	6,945	
7.00	Maintenance for 3rd Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)	Cum	137.50	147.84	20,328	
8.00	Maintenance for 3rd Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sam	200.00	7.39	1,478	
9.00	Maintenance for 3rd Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	5.00	7268.80	36,344	

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
10.00	Maintenance for 3rd Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	18.38	2668.51	,49,047
11.00	Maintenance for 3rd Year: KSRB 4.2.1 : Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No : 4.10)	Cum	54.00	7635.94	4,12,341
12.00	Maintenance for 3rd Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)	Sqm	540.00	324.02	1,74,971
13.00	Maintenance for 3rd Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3.	MT	4.32	87203.42	3,76,719
14.00	Maintenance for 3rd Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	61.25	688.34	,42,161
15.00	Maintenance for 3rd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	12.25	4987.14	,61,092
16.00	Maintenance for 3rd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600- 1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	17.00	4533.76	,77,074

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
17.00	Maintenance for 3rd Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,Sl No : 22.2.2)		30.63	7102.48	2,17,549
18.00	Maintenance for 3rd Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	500.00	128.80	,64,400
19.00	Maintenance for 3rd Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	500.00	407.79	2,03,895
20.00	Maintenance for 3rd Year: Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).  (Precast C.C. kerb stone shall be approved by Engineer-in-charge).  (RA Attached)		1.55	19833.88	,30,743
21.00	Maintenance for 3rd Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1.95	518.67	,1,011
22.00	Maintenance for 3rd Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)		0.83	518.67	,,430
23.00	Maintenance for 3rd Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Rmt	100.00	120.74	12,074
24.00	Maintenance for 3rd Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	980.00	98.56	,96,589
25.00	Maintenance for 3rd Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	10.00	1027.04	10,270

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
26.00	Maintenance for 3rd Year: Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item)	Nos.	10.00	3920.00	,39,200
27.00	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	Rmt	20.00	338.28	6,766
28.00	Maintenance for 3rd Year: KSRB 11-18-17.1: 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. (PWD SR 2015-16,P.No.86, SI.No.12.89)	Nos.	10.00	1022.56	10,226
29.00	Maintenance for 3rd Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	10.00	6187.10	61,871
30.00	Maintenance for 3rd Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)	Rmt	50.00	2210.16	1,10,508
31.00	Maintenance for 3rd Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	50.00	1198.65	,59,933
32.00	Maintenance for 3rd Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  (Market rate)		34.00	1083.24	36,830
33.00	Maintenance for 3rd Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)		34.00	2180.64	,74,142
34.00	Maintenance for 3rd Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	10.00	812.36	8,124

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
35.00	Maintenance for 3rd Year: Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101, SI No: 14.6)	Sqm	170.00	1300.99	2,21,168
36.00	Maintenance for 3rd Year:  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 30mm 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.  (Non SOR Item)	Sqm	27.00	1021.44	27,579
37.00	Maintenance for 3rd Year: Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.7)	Sqm	300.00	1372.45	4,11,735
38.00	Maintenance for 3rd Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	6.00	9657.65	57,946
39.00	Maintenance for 3rd Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	3.20	10793.55	34,539
40.00	Maintenance for 3rd Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	50.00	356.05	17,803
41.00	Maintenance for 3rd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No: 24.57)	Sqm	25.50	528.53	13,478
42.00	Maintenance for 3rd Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	2.00	68544.00	1,37,088

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
43.00	Maintenance for 3rd Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00	5040.00	5,040
44.00	Maintenance for 3rd Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars (shop drawing to be approved), with vertical support of 0.9m @2.2mc/c, all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	0.30	112000.00	33,600
45.00	Maintenance for 3rd Year: Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.		943.74	200.48	189,201
46.00	Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	58.53	101.76	5,956
47.00	Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead  Item No 17.4 KSRRB M100-4.1-Debris	Cum	9.38	102.26	,959
48.00	Electrical Works  Maintenance for 3rd Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1.00	1450.40	1,450
49.00	Maintenance for 3rd Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.	0.00	19172.16	,0
50.00	Maintenance for 3rd Year: 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)	Nos.	1.00	13910.40	13,910
51.00	Maintenance for 3rd Year: 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, icluding 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)	Nos.	1.00	8285.76	8,286

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
52.00	Maintenance for 3rd Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1.00	3964.80	3,965
53.00	Maintenance for 3rd Year: 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.	1.00	2688.00	2,688
54.00	Maintenance for 3rd Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole.8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00	694.40	1,27,770
55.00	Maintenance for 3rd Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00	13196.87	,13,197
56.00	Maintenance for 3rd Year: 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.	1.00	1732.64	,1,733
57.00	LT Cable  Maintenance for 3rd Year: 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	600.00	131.04	78,624
58.00	Maintenance for 3rd Year: 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	100.00	91.39	9,139
59.00	Maintenance for 3rd Year: 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	45.00	12.67	570
60.00	Maintenance for 3rd Year: 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	40.00	3.49	140
61.00	Earthing system  Maintenance for 3rd Year: 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	1.00	6160.00	6,160
62.00	Maintenance for 3rd Year: 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	500.00	21.84	10,920
	Landcaping Works				
63.00	SOIL MIXES and Ground Preparation  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment).  (Non SOR Item)		36.00	156.80	5,645

Sr.No.	Specification	Unit	Total Qty.	Rate	Amount
64.00	Maintenance for 3rd Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	27.00	251.33	6,786
65.00	Maintenance for 3rd Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	Cum	18.00	126.90	2,284
66.00	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)  Soil preparation of Lawn	Cum	1.20	26.78	32
67.00	Maintenance for 3rd Year: KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 19.80)	Sqm	382.19	126.90	48,500
	TURF				
68.00	Maintenance for 3rd Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	3.00	175.62	527
69.00	Maintenance for 3rd Year: Watering with tanker to landscape area and plants for one year	Year	1.00	43897.06	43,897
70.00	Maintenance for 3rd Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	3.00	627.20	1,882
				Total	,38,63,378

Executive Engineer MSCL Mangaluru

#### Name of the Work :- Mangalore Smart City 8.3.1 M.S. For Maintenance of Road and Other Work for DPR 3 - 3rd Year

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
	Civil Works						
1.00	Maintenance for 3rd Year: Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	Sqm	1	40	2		80.00
2.00	Maintenance for 3rd Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)	Cum	1	3.5	3.5	0.3	3.68
3.00	Maintenance for 3rd Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	1	25			25.00
4.00	Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	1	20	1	0.5	10.00
5.00	Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)	Cum	1	3	0.5	0.23	0.35
6.00	Maintenance for 3rd Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,SI No : 19.14)	Cum	1.00	55	5	0.5	137.50
7.00	Maintenance for 3rd Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)	Cum	1.00	55	5	0.5	137.50
8.00	Maintenance for 3rd Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sqm	1.00	40		5	200.00
9.00	Maintenance for 3rd Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	1.00	10	5	0.1	5.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
10.00	Maintenance for 3rd Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI.  (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	10.00	3.5	3.5	0.15	18.38
11.00	Maintenance for 3rd Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications.	Cum	1.00	300	0.2	0.9	54.00
12.00	(Page No 13,SI No : 4.10)  Maintenance for 3rd Year:  KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)	Sqm	2.00	300		0.9	540.00
13.00	Maintenance for 3rd Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3. do with TMT bars Fe500	MT	1.00	4.32			4.32
14.00	Maintenance for 3rd Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	10.00	3.5	3.5	0.5	61.25
15.00	Maintenance for 3rd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	10.00	3.5	3.5	0.1	12.25
16.00	Maintenance for 3rd Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	1.00	85	2	0.1	17.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
17.00	Maintenance for 3rd Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	10.00	3.5	3.5	0.25	30.63
18.00	Maintenance for 3rd Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	1.00	500			500.00
19.00	Maintenance for 3rd Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	1.00	500			500.00
20.00	Maintenance for 3rd Year:  Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).  (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	1	15	0.1		1.55
21.00	(RA Attached)  Maintenance for 3rd Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.03		1.95
22.00	Maintenance for 3rd Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.01		0.83
23.00	Maintenance for 3rd Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Rmt	100				100.00
24.00	Maintenance for 3rd Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	1	3500		0.28	980.00
25.00	Maintenance for 3rd Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	10.00				10.00
26.00	Maintenance for 3rd Year:  Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item)	Nos.	10.00				10.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
27.00	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	Rmt	1.00	20.00			20.00
28.00	Maintenance for 3rd Year: KSRB 11-18-17.1: 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. (PWD SR 2015-16,P.No.86, SI.No.12.89)	Nos.	1.00	10			10.00
29.00	Maintenance for 3rd Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	1	10.00			10.00
30.00	Maintenance for 3rd Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)	Rmt	1	50			50.00
31.00	Maintenance for 3rd Year: Providing and laying Dia 160mm HDPE Power Ductwith Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	1	50			50.00
32.00	Maintenance for 3rd Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	34				34.00
33.00	Maintenance for 3rd Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	34				34.00
34.00	Maintenance for 3rd Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete. (Market Rate)	Rmt	1	10			10.00
35.00	Maintenance for 3rd Year:  Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.6)	Sqm	1	85	2		170.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
36.00	Maintenance for 3rd Year: 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 30mm 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. (Non SOR Item)	Sqm	1.00	90	0.3		27.00
37.00	Maintenance for 3rd Year: Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.7)	Sqm	1.00	200	1.5		300.00
38.00	Maintenance for 3rd Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	2.00	8	2.5	0.15	6.00
39.00	Maintenance for 3rd Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	4.00	2.5	8	0.04	3.20
40.00	Maintenance for 3rd Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	50.00				50.00
41.00	Maintenance for 3rd Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	1.00	170	0.15		25.50
42.00	Maintenance for 3rd Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	2.00				2.00
43.00	Maintenance for 3rd Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00				1.00
44.00	Maintenance for 3rd Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars (shop drawing to be approved), with vertical support of 0.9m @2.2mc/c, all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	1.00	0.3			0.30

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
45.00	Maintenance for 3rd Year:  Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Cum	2.00	6741	0.7	0.1	943.74
46.00	Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	1.00	58.53			58.53
47.00	Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Debris	Cum	1.00	9.38			9.38
	Electrical Works						
48.00	Maintenance for 3rd Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1				1.00
49.00	Maintenance for 3rd Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.					0.00
50.00	Maintenance for 3rd Year: 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)	Nos.	1				1.00
51.00	Maintenance for 3rd Year: 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, icluding 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)	Nos.	1				1.00
52.00	Maintenance for 3rd Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1				1.00
53.00	Maintenance for 3rd Year: 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.	1				1.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
54.00	Maintenance for 3rd Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00				184.00
55.00	Maintenance for 2nd Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00				1.00
56.00	Maintenance for 2nd Year: 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.	1.00				1.00
	LT Cable						
57.00	Maintenance for 3rd Year: 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	1	600.00			600.00
58.00	Maintenance for 3rd Year: 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	1	100.00			100.00
59.00	Maintenance for 3rd Year: 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	45				45.00
60.00	Maintenance for 3rd Year: 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	40				40.00
	Earthing system						
61.00	Maintenance for 3rd Year: 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	1				1.00
62.00	Maintenance for 3rd Year: 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	1	500			500.00
	Landcaping Works						
63.00	SOIL MIXES and Ground Preparation  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	1	100	0.6	0.6	36.00
64.00	Maintenance for 3rd Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	3	100	0.6	0.15	27.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
65.00	Maintenance for 3rd Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)		3	100	0.6	0.1	18.00
66.00	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	3	100	0.04	0.1	1.20
	Soil preparation of Lawn						
67.00	Maintenance for 3rd Year: KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications.  MORTH Specification No.307 (KSRRB 19.80)	Sqm	1.00	382.19			382.19
68.00	Maintenance for 3rd Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item) IRRIGATION	Sqm	1	5	0.6		3.00
69.00	Maintenance for 3rd Year: Watering with tanker to landscape area and plants for one year	Year					1.00
70.00	Maintenance for 3rd Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	1	5	0.6		3.00

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

# Name of the Work :- Mangalore Smart City 8.3.2 R.A. For Maintenance of 3rd Year - DPR 3

4	Maintenance for 3rd Year:			
		, , ,		
4	Taking out existing CC interlocking paver blocks from footpath		-	
1	rubbish etc., disposal of unserviceable material to the dumping	ground, for	which payme	ent shall be
	made separately and stacking of serviceable material within	50 metre l	ead as per o	direction o
	Engineer-in-Charge.( RA attached)		ос. с. с. р с.	
	,		1	
	Basic rate		68.16	
	Maintenance- 3rd year escalation of 12%		8.18	
	Add 10% For area weightage (Mangalore City)		7.63	
	The service of the grounds (manigations only)	Rate	83.97	Sqm
		Nate	03.37	Oqiii
	Maintenance for 3rd Year:			
	KSRRB M200.Dismantling of cement concrete pavement by r	mechanical	means using	pueumation
	tools, breaking to pieces not exceeding 0.02 cum in volume and	stock pilling	g at designate	ed locations
2	and disposal of dismantled material stacking serviceble and			
_	complete as per specifications.MORTH specification No.202.(In			
	and unloading for lead 5km-Extra)	cidding train	sporting char	gcs,ioaanig
	(Page No 138,SI No : 18.47)			
	Basic rate		899	
	Maintenance- 3rd year escalation of 12%	$\top$	107.88	
	Add 10% For area weightage (Mangalore City)		100.69	
	riad rozo roz aroa molginago (manganoro ony)	Rate	1107.57	Cum
		Nate	1107.57	Cum
	Maintenance for 3rd Year:			
	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB	M200-26. D	ismantling Ke	rb stone by
3	Manual means and disposal of dismantled materials with all lifts	and complet	e as per	
	specifications.MORTH Specification No.202.		•	
	(Page No.139,S.I.No.18.49)			
	Basic rate			
			12 001	
			12.00	
	Maintenance- 3rd year escalation of 12%		1.44	
	Maintenance- 3rd year escalation of 12%	Rate	1.44	Rmt
	Maintenance- 3rd year escalation of 12%	Rate	1.44 1.34	Rmt
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)	Rate	1.44 1.34	Rmt
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year:		1.44 1.34 <b>14.78</b>	
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver	rts, bridges,	1.44 1.34 14.78 retaining wall	s and othe
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood wo	rts, bridges, ork, steel w	1.44 1.34 14.78 retaining wall- ork, including	s and othe g T&P and
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material	rts, bridges, ork, steel w l, disposal o	1.44 1.34 14.78  retaining walls rork, including	s and othe g T&P and ble materia
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood wo	rts, bridges, ork, steel w l, disposal o	1.44 1.34 14.78  retaining walls rork, including	s and othe T&P and ole materia
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walls ork, including of unserviceate ations. II. By	s and othe g T&P and ble materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete as particular and stacking the serviceable material with all lifts complete and serviceable material with all l	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walls ork, including of unserviceate ations. II. By	s and othe g T&P and ble materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as Means. A. Cement Concrete Grade M-15 &M-20. MORTH Spet 17,18.20,Page No.137)	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)	s and othe g T&P and ble materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as pleans. A. Cement Concrete Grade M-15 &M-20. MORTH Spet 17,18.20,Page No.137)  Basic rate	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walk ork, including of unserviceat ations. II. By o. 202 (KPW)	s and othe g T&P and ble materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specific 17,18.20,Page No.137)  Basic rate Maintenance- 3rd year escalation of 12%	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8	s and othe g T&P and ble materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as pleans. A. Cement Concrete Grade M-15 &M-20. MORTH Spet 17,18.20,Page No.137)  Basic rate	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walk ork, including of unserviceat ations. II. By o. 202 (KPW)	s and other g T&P and ole materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specific 17,18.20,Page No.137)  Basic rate Maintenance- 3rd year escalation of 12%	rts, bridges, ork, steel w l, disposal coer specifica	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8	s and othe g T&P and ole materia Mechanica D SOR 16
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specific 17,18.20,Page No.137)  Basic rate Maintenance- 3rd year escalation of 12%	rts, bridges, ork, steel w I, disposal coer specification N	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8 43.68	s and othe g T&P and ble materia Mechanica
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Special Special Special Special Means.  Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)	rts, bridges, ork, steel w I, disposal coer specification N	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8 43.68	s and othe g T&P and ole materia Mechanica D SOR 16
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Special T7,18.20,Page No.137)  Basic rate  Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)	rts, bridges, ork, steel w I, disposal coer specification No	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48	s and othe g T&P and ole materia Mechanica D SOR 16
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as performed by Means. A. Cement Concrete Grade M-15 &M-20. MORTH Spet 17,18.20,Page No.137)  Basic rate Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culvers.	rts, bridges, ork, steel will, disposal coer specification Note that the state of t	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48	s and othe g T&P and ple materia Mechanica D SOR 16  Cum
4	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Special T7,18.20,Page No.137)  Basic rate  Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)	rts, bridges, ork, steel will, disposal coer specification Note that the state of t	1.44 1.34 14.78  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48	s and othe g T&P and ple materia Mechanica D SOR 16  Cum
5	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as performed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Spet 17,18.20,Page No.137)  Basic rate Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culver structure comprising of masonary, cement concrete, woodwood.	rts, bridges, ork, steel work,	1.44 1.34 1.478  retaining walls ork, including of unserviceat ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48  retaining walls ork, including walls ork, including	s and othe to T&P and
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification of 17,18.20,Page No.137)  Basic rate  Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culver structure comprising of masonary, cement concrete, woodwords scaffolding wherever necessary, sorting the dismantled material	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 1.478  retaining walls ork, including ations. II. By o. 202 (KPWI)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceations.	s and othe to T&P and to T&P and to T&P and to SOR 16  Cum  s and othe to T&P and
	Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culverstructure comprising of masonry, cement concrete, wood work scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Maintenance for 3rd Year: Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culverstructure comprising of masonary, cement concrete, woodworkscaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material with all lifts complete as personal stacking the serviceable material	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 1.478  retaining walls ork, including ations. II. By o. 202 (KPWI)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceations.	s and othe  y T&P and ble materia Mechanica D SOR 16  Cum  s and othe y T&P and
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specific 17,18.20,Page No.137)  Basic rate  Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culver structure comprising of masonary, cement concrete, woodword scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as peri)Dismantaling Brick/Tile work B.In Cement mortar	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 1.478  retaining walls ork, including ations. II. By o. 202 (KPWI)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceations.	s and othe  y T&P and ble materia Mechanica D SOR 16  Cum  s and othe y T&P and
	Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culverstructure comprising of masonry, cement concrete, wood work scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed maintenance. 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culverstructure comprising of masonary, cement concrete, woodworkscaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as periority in the dismantled material and stacking the serviceable material with all lifts complete as periority in the dismantled material and stacking the serviceable material with all lifts complete as periority.	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 1.34 14.78  retaining walls ork, including of unserviceate ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceate ons.	s and othe to T&P and
	Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culver structure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specific 17,18.20,Page No.137)  Basic rate  Maintenance- 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culver structure comprising of masonary, cement concrete, woodword scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as peri)Dismantaling Brick/Tile work B.In Cement mortar	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 14.78  retaining walls ork, including of unserviceate ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceate ons.	s and othe to T&P and to T&P and to T&P and to SOR 16  Cum  s and othe to T&P and
	Maintenance for 3rd Year: KSRRB M200-13.1. Dismantling of existing structures like culverstructure comprising of masonry, cement concrete, wood work scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed maintenance. 3rd year escalation of 12% Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRRB M200-12.1. Dismantling of existing structures like culverstructure comprising of masonary, cement concrete, woodworkscaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as periority in the dismantled material and stacking the serviceable material with all lifts complete as periority in the dismantled material and stacking the serviceable material with all lifts complete as periority.	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 1.34 14.78  retaining walls ork, including of unserviceate ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceate ons.	s and other of T&P and other of Mechanica D SOR 16-  Cum  s and other of T&P and
	Maintenance- 3rd year escalation of 12%  Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year:  KSRRB M200-13.1. Dismantling of existing structures like culverstructure comprising of masonry, cement concrete, wood we scaffolding wherever necessary, sorting the dismantled material and stacking the serviceable material with all lifts complete as placed Means. A. Cement Concrete Grade M-15 &M-20. MORTH Spet 17,18.20,Page No.137)  Basic rate  Maintenance- 3rd year escalation of 12%  Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year:  KSRRB M200-12.1. Dismantling of existing structures like culverstructure comprising of masonary, cement concrete, woodwestructure comprising of masonary, sorting the dismantled material and stacking the serviceable material with all lifts complete as peri)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate	rts, bridges, ork, steel wall, disposal coer specification Notes and the state of t	1.44 1.34 14.78  retaining walls ork, including of unserviceate ations. II. By o. 202 (KPW)  390 46.8 43.68 480.48  retaining walls ork, including of unserviceate ons.	s and other g T&P and ble materia Mechanica D SOR 16-  Cum  s and other g T&P and

<b>_</b>	T	T	1							
	Maintenance for 3rd Year: KSRRB M300-14. Excavation for roadwork in all types of soil with	n hydraul	lic excavator o	of 0.9 bucket						
	capacity including cutting and loading in tippers,trimming bottom	•								
6	requirements of lines and grades and cross sections, and transpo									
O	of 1.00Km and complete as per specifications.	9 4		ар 10 а 10 a						
	MORTH specification No.301(Including transporting charges, load	ing and ເ	ınloadina for le	ead 5km)						
	(Page No 143,SI No : 19.14)		g							
	Basic rate		41							
	Maintenance- 3rd year escalation of 12%		4.92							
	Add 10% For area weightage (Mangalore City)		4.59							
	That 1070 For all our mongritudge (manigation of only)	Rate	50.51	Cum						
	Maintenance for 3rd Year:	l .								
	KSRB 2-4: Refilling available earth around pipe lines, cables in lay	yers not e	exceeding 20d	ms in depth,						
7	compacting each deposited layer by ramming after watering with	lead upto	50m. and lift	t upto 1.5 m.						
	including cost of all labour complete as per specifications.(KPWD 16-17,SI No.2.11,Pg. No.6)									
	Basic rate		120							
	Maintenance- 3rd year escalation of 12%		14.4							
	Add 10% For area weightage (Mangalore City)		13.44							
		Rate	147.84	Cum						
	Maintenance for 3rd Year:									
0	KSRRB 300-Compaction KSRRB 300-58. Compaction of original of 0.45.40 to a second and original of 0.45.40 to a second and original	-		•						
8	of 8 to 10 tonnes power roller including filling in depression occurring during rolling including cost of all									
	labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI									
	No.19.64,Pg. No.149) Basic rate	1	6							
	Maintenance- 3rd year escalation of 12%		6 0.72							
	Add 10% For area weightage (Mangalore City)		0.72							
	rad 10701 of area weightage (Mangalore Oity)	Rate	7.39	Sqm						
		110.00	1100	<u> </u>						
	Maintenance for 3rd Year:	l								
	KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement									
	@ 240kgs, with 20mm and down size graded granite metal coars	e aggreg	ates @ 0.69	cum and fine						
9	aggregtes @ 0.459cum, machine mixed, concrete laid in layers	not exce	eeding 15 cm	s. thick, well						
	compacted, in foundation, plinth and cills, ncluding cost of all ma									
	curing complete as per specifications. Specification No. KBS 4.1,	4.2. (P.N	o.12, I.No. 4.6	of PWD SR						
	2015-16)									
	Basic Rate		5900							
	Maintenance- 3rd year escalation of 12%		708							
	Add 10% For area weightage (Mangalore City)		660.8							
		Rate	7268.80	Cum						
	Maintanana fan Ond Vari									
	Maintenance for 3rd Year:	al /±al-l-	400 0) 1/05	DD 14400 7						
	KSRRB 400 Granular Sub-Base with Coarse Graded Materia									
	Construction of granular sub-base by providing Coarse graded cru									
10	trap / basalt material, speading in uniform layers with motor gradmix in place method with rotavator at OMC, and compacting v									
	desired density, complete as per MORTH specifications clause 40		•							
	(P.No.12, I.No. 4.6 of PWD SR 2015-16)	i aliu i a	Die 400-1 Gra	uilig vi.						
	(1.1NO.12, 1.1NO. 4.0 011 WD OK 2010-10)									
	Basic Rate		2166							
	Maintenance- 3rd year escalation of 12%		259.92							
	Add 10% For area weightage (Mangalore City)		242.59							
	5 5 \ 5 - 7/	Rate	2668.51	Cum						

11	Maintenance for 3rd Year: KSRB 4.2.1 : Providing and laying in position reiforcement cemer OPC cement @340Kgs,with 20mm and down size graded granicum with super plasticisers @3 liters confirming to IS 9103-7 mixed,concrete laid in layers not exceeding 15cms thick, vibratifootings, pedastals, retaining walls,return walls,walls (any thick columnspillars, posts, struts, buttresses, bed blocks,anchor blocklabour,HOM of machinery,curing,complete but excluding cost of rei(Page No 13,SI No : 4.10)  Basic Rate	te metal of 1999 read ted for a ness) inc cks & plir	coarse aggreg firmed -2008 Il works in for luding attache oths etc.,Inclu	gate @ 0.47 at machine undation for ed pilasters, ding cost of				
	Maintenance- 3rd year escalation of 12%		743.76					
	Add 10% For area weightage (Mangalore City)		694.18					
	Add 10% For area weightage (Mangalore City)	Data	<b>7635.94</b>	Cum				
		Rate	7035.94	Cum				
12		5.1 Providing and removing centering, shuttering, strutting, propping etc.,and refor foundations, footings, bases of columns for mass concrete including collabour complete as per specifications. ion No. KSB 4.6.2						
	Basic Rate		263					
	Maintenance- 3rd year escalation of 12%		31.56					
	Add 10% For area weightage (Mangalore City)		29.46					
		Rate	324.02	Sqm				
13	straighting, cutting, bending, hooking, placing in position, lapping and with binding wire and anchoring to thr adjoing members wherever (laps, hooks and wastage shall not be measured and paid) cost of machinary complete as per specifications. Specification No. KBS4. do with TMT bars Fe500	necessar materials	y complete as	per design				
	Basic Rate		70782					
	Maintenance- 3rd year escalation of 12%		8493.84					
	Add 10% For area weightage (Mangalore City)		7927.58					
	Add 10761 of afea weightage (Mangalore City)	Rate	87203.42	MT				
		Nate	07203.42	141.1				
14	Maintenance for 3rd Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of Subgrade. KSRRB M300-55. Construction of Subgrade. KSRRB M300-55. Construction of Gravel/Murrum with all lifts & leads, transporting to site, spand compacted to meet requirement of Table No. 300-2 complete cost of earth, watering charges & compaction by vibratory rollercor of proctors density) MORTH Specification No. 305	preading, as per sp	grading to rec ecifications (ir	to required slope ons (including				
	Basic Rate		513					
	Maintenance- 3rd year escalation of 12%		61.56					
	Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface Road)=2.0 Rs/ Tkm x 1.28 T x 20km		51.2					
	Sub Total		625.76					
	A 11400/ E							
	Add 10% For area weightage (Mangalore City)		62.58					
	Add 10% For area weightage (Mangalore City)	Rate	62.58 <b>688.34</b>	Cum				

	Maintenance for 3rd Year: KSRRB M600-1.Construction of dry lean cement concrete m	ix M15 v	with 1:5:10 C	PC cement				
	@160Kgs,with 25mm and down size graded granite/trap/basalt n							
	and fine aggregate @ 0.58cum Sub-base over prepared sub grad							
		,		00 0				
15	confirming to IS:383) aggregate cement ration not to excee 15:1.		•	•				
'0	to be as per Table 600-1, cement content to be determined during	•	•					
	strength not to be less than 10Mpa at 7 days, mixed in a batching	•	•					
	paver with electronic sensor, compacting with 8-10 tonnes double	drum vi	bratory roller,f	inishing and				
	curing complete as per specifications. Morth specification No.601							
	(Page No 176,SI No : 22.1)							
	Basic Rate		4048					
	Maintenance- 3rd year escalation of 12%		485.76					
	Add 10% For area weightage (Mangalore City)		453.38					
	Add 10761 of area weightage (Mangalore Oity)	Doto	4987.14	Cum				
		Rate	4907.14	Culli				
	Maintenance for 3rd Year:							
	KSRRB M600-1.Construction of dry lean cement concrete m	ix M15 v	with 1:5:10 C	PC cement				
	@160Kgs,with 25mm and down size graded granite/trap/basalt n							
	and fine aggregate @ 0.58cum Sub-base over prepared sub grad							
16	confirming to IS:383) aggregate cement ration not to excee 15:1.	-	•	•				
	to be as per Table 600-1, cement content to be determined during	•	•					
	strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually							
	laid and compacting with palte compactor, finishing and curing co	mplete a	is per specific	ations.Morth				
	specification No.601							
	(RA attached)							
	Basic Rate		3680					
	Maintenance- 3rd year escalation of 12%		441.6					
	Add 10% For area weightage (Mangalore City)		412.16					
		Rate	4533.76	Cum				
	Maintenance for 3rd Year:	I						
	KSSRB M600-2.Construction of unreinforced,dowel jointed,plain	cement	concrete nave	ement over a				
	prepared sub base with 25mm and down size graded gran		•					
	superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed		•					
	conforming to IS:383) mixed in a batching and mixing plant as pe	`		00 0				
			•	•				
17	to site, laid with a fixed form paver spread, compacted and finished		•	_				
	provision of contraction, expansio, construction and longitudin	-		-				
	chrges, joints filler, separation memberane, sealent primer, joints s		•					
	at 4.5m intervals, tie rod, admixtures as approved, curing compou							
	per drawing complete as per sprcifications MORTH specification	n No.602	do with M40.	(420Kg per				
	cum Cement,C.A,0.67 cum F.A.044Cum							
	(Page No 176,SI No : 22.2.2)	ı						
	Basic Rate		5765					
	Maintenance- 3rd year escalation of 12%		691.8					
	Add 10% For area weightage (Mangalore City)		645.68					
		Rate	7102.48	Cum				
	Maintenance for 3rd Year:	- :- 0		o dala a terre di				
	Providing and placing joint sealant compound of cold polysulphid	•	•	•				
4.0	groove to required width, sand blasting the groove face if recomme							
18	cleaning the groove with air compressor, insertion of debonding st		-					
	if the sealant manufacturer recommends and pouring the seala	nt all co	mplete includ	ing material,				
	manpower							
	(Non SOR Item)	ı						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		115					
	Sr.No.2							
	Maintenance- 3rd year escalation of 12%		13.8					
		Rate	128.8	Rmt				

	1								
	Maintenance for 3rd Year:								
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar								
19	KSRRB M3000-8 Repairs of spalled joints grooves of contract								
19	expansion joints in concrete pavement using epoxy mo	rtar con	crete comple	ete as pe					
	specifications.Morth specification No.3005.1								
	(Page No 257,SI No : 35.8)								
	Basic Rate		331						
	Maintenance- 3rd year escalation of 12%		39.72						
	Add 10% For area weightage (Mangalore City)		37.07						
	/ tad 10701 of area weightage (mangalore exp)	Rate	407.79	Rmt					
			1011110						
	Maintenance for 3rd Year:	<u> </u>							
	Providing and laying at or near ground level factory made kerb sto	ne of M-	20 grade cem	ent concrete					
	in position to the required line, level and curvature, jointed with		•						
	coarse sand), including making joints with or without grooves (1								
20	curve shall not to more than 5mm), including making drainage or		•	•					
20		•	•	•					
	etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for								
	payment).								
	(Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)	).							
	,								
	Rate Arrived as per Rate analysis	1	47700.00						
	Basic Rate		17708.82						
	Maintenance- 3rd year escalation of 12%		2125.06						
		Rate	19833.88	Cum					
	Maintenance for 3rd Year:								
	machinery,loading,unloading,lead and lift,transportation etc.,comp (Page No 25,SI No : 5.3)  Basic rate	lete	421						
	Maintenance- 3rd year escalation of 12%		50.52						
	Add 10% For area weightage (Mangalore City)		47.15						
	Add 10% For area weightage (Mangalore City)	Rate	518.67	Cum					
		Kale	310.07	Culli					
	Maintenance for 3rd Year:								
		(مانداد ما							
	Providin and fixing pre cast solid concrete water table(longituding								
22	out of CC 1:2:4 and jointed with CM 1:3 and finishin		•						
	materials,labour,hire charges of machinery,loading,unload	iing,iead	and lift,ti	ransportation					
	etc.,complete (Page No 25,SI No : 5.3)								
	,	1							
	Basic rate		421						
	Maintenance- 3rd year escalation of 12%		50.52						
	Add 10% For area weightage (Mangalore City)		47.15						
		Rate	518.67	Cum					
·									
	Maintenance for 3rd Year:								
	Removing and resetting of kerb stones. including cost of a	all mater	ials, scaffoldi	ing HOM of					
23	machineries with all lead and lifts, labour charges including imp	olementat	tion of Enviro	nmental and					
_0	Social Safeguards & as per design, drawing, technical specificat	ions and	directions of	Engineer-in-					
	charge.								
	Designate	T	1 22						
	Basic rate		98						
	Maintenance- 3rd year escalation of 12%		11.76						
	Add 10% For area weightage (Mangalore City)		10.98						
		Rate	120.74	Cum					
			1						

	Maintenance for 3rd Year:			
	KSRRB 800-1. Painting two coats after filling the surface with sy	nthetic enan	nel naint in an	roved
24	shades on new plastered concrete surfaces, with materials, labo			
	MORTH Chapter 8	ar complete	do por opcom	oationo.
	(Page No 182,SI No : 24.1)			
	Basic Rate		80	
	Maintenance- 3rd year escalation of 12%		9.6	
	Add 10% For area weightage (Mangalore City)		8.96	
	3 3 \ 3 7/	Rate	98.56	Sqm
	Maintenance for 3rd Year:			
25	P/F Square shape 600mmx450 mm precast R.C.C. manhole cov	er with fram	e	
	(Rate analysis attached)	or war nam		
	Rate Arrived as per Rate analysis			
	Basic Rate		917	
	Maintenance- 3rd year escalation of 12%		110.04	
		Rate	1027.04	Nos.
	Maintenance for 3rd Year:			
	Providing and Fixing Recessed Inception chamber cover - size:	(1250 x 125	0 x 80)mm Ma	iterial: Ca
26	Iron / Ductile Iron	`	,	
	(NON SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer			
	Sr.No.15		3500.00	
	31.140.13			
	Maintenance- 3rd year escalation of 12%		420	
		Rate		Nos.
		Rate	420	Nos.
	Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:		420 <b>3920.00</b>	
	Maintenance- 3rd year escalation of 12%		420 <b>3920.00</b>	
27	Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:	to the requi	420 <b>3920.00</b> ired alignment	s includir
27	Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul	to the requi	420 3920.00 ired alignment of the pipe lin	s includir ne.The ra
27	Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Providing gully pipe lowering, laying of PVC 100 mm dia pipes	to the requi	420 3920.00 ired alignment of the pipe lin	s includin
27	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016)	to the requi	3920.00 ired alignment of the pipe ling etc as direct	s includir ne.The ra
27	Maintenance for 3rd Year: Providing gully pipe lowering, laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials, testing apparatus and wate Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016) Basic Rate	to the requi	420 3920.00 ired alignment of the pipe ling etc as direct	s includin
27	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate Maintenance- 3rd year escalation of 12%	to the requi	420 3920.00  ired alignment g of the pipe ling g etc as direct 297 35.64	s includir ne.The ra
27	Maintenance for 3rd Year: Providing gully pipe lowering, laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials, testing apparatus and wate Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016) Basic Rate	to the requi	420 3920.00 ired alignment of the pipe ling etc as direct	s includin
27	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage	to the requi	420 3920.00  ired alignment g of the pipe ling g etc as direct 297 35.64	s includir ne.The ra
27	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)	to the required to the required testing for testing (5-17)	420 3920.00  ired alignment g of the pipe ling etc as direct  297 35.64 5.64	s including ne.The rated by the
27	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year:	to the required to the require	420 3920.00 ired alignment g of the pipe ling g etc as direct 297 35.64 5.64 338.28	s includir ne.The ra sted by th
27	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10	to the required to the require	420 3920.00  ired alignment g of the pipe lin g etc as direct 297 35.64 5.64 338.28  self cleaning of	es includir ne.The rated by the
	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es includir ne.The rated by the Rm design with
27	Maintenance for 3rd Year:  Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016 Basic Rate  Maintenance- 3rd year escalation of 12%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year:  KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir and floors, cost of materials, labour, testing, complete as per specials.	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es includir ne.The ra eted by the Rm design with
	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016) Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir and floors, cost of materials, labour, testing, complete as per specials.	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es includir ne.The ra eted by the Rm design with
	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,Item No.7,KUWSDB SOR 2016) Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir and floors, cost of materials, labour, testing, complete as per special services. (PWD SR 2015-16,P.No.86, SI.No.12.89)	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es includir ne.The ra eted by the Rm design with
	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,ltem No.7,KUWSDB SOR 2016) Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir and floors, cost of materials, labour, testing, complete as per special contents of the complete and provided in the complete as per special contents.	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es includir ne.The ra eted by the Rm design with
	Maintenance for 3rd Year: Providing gully pipe lowering, laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials, testing apparatus and wate Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016) Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47, For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir and floors, cost of materials, labour, testing, complete as per special transport of the strength of th	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es including the restricted by the restricted by the management of the walls of the
	Maintenance for 3rd Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes specials and grade as indicated in drawings/design and hydraul shall include all jointing materials,testing apparatus and wate Engineer in charge (page No.41,ltem No.7,KUWSDB SOR 2016) Basic Rate Maintenance- 3rd year escalation of 12% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 3rd Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 10 screwed down or hinged grating with or without vent arm includir and floors, cost of materials, labour, testing, complete as per special contents of the complete and provided in the complete as per special contents.	to the required ically testing or for testing in the formula ically testing in the following cutting and its interest in the following cutting cutting cutting cutting and its interest in the following cutting cut	3920.00  ired alignment of the pipe ling etc as direct a	es includir ne.The rated by the Rm design with

	Maintenance for 3rd Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. F	Providina	and laving of	a reinforced
	cement concrete pipe duct, 300 mm dia, across the road (new co			
	drain in cuts and toe of slope to toe of slope in fills, constructing h			
	minimum fill of granular material over top and sides of RCC pipe			. •
29	0.3 m thick layer of granular material free of rock pieces, outer to	•		
	dia of pipe subject to minimum450 mm in case of double and tripl			
	proof, invert level of duct to be above higher than ground level to			
	as per IRC: 98 - 1997 and approved drawings complete as per s	•	•	
	for one utility service	•		
	( KPWD SOR 16-17, Item No.24.34, Pg. No. 188)			
	Basic Rate		5022	
	Maintenance- 3rd year escalation of 12%		602.64	
	Add 10% For area weightage (Mangalore City)		562.46	
		Rate	6187.10	Rm
	Maintenance for 3rd Year:			_
	Providing and laying Dia 225mm HDPE Electrical pipe Conduits			
	with ribs, dimensional ratio of 13.5, Deflection not greater than			
30	operating temparature 90°C under the over burden soil presu			
	comforming to ASTMF 2160 and /or NEMA TC7.The expected	service li	fe of HDPE pi	pe conduits
	and accessories shall not be less than 50 years.			
	(Market Rate)			
	Basic Rate		2300	
	Deduct GST @18%		-414	
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item		70	
	No.50,Pg.No.123)		78	
	Add 12% For area weightage (Mangalore City)		9.36	
	Sub Total		1973.36	
	Maintenance- 3rd year escalation of 12%		236.8	
		Rate	2210.16	Rm
	Maintenance for 3rd Year:			
	Providing and laying Dia 160mm HDPE Electrical pipe Conduits			•
31	with ribs, dimensional ratio of 13.5, Deflection not greater than			
31	operating temparature 90°C under the over burden soil presu			
	comforming to ASTMF 2160 and /or NEMA TC7.The expected	service li	fe of HDPE pi	pe conduits
	and accessories shall not be less than 50 years.(Market Rate)			
	Basic Rate		1215	
	Deduct GST @18%		-218.7	
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item		66	
	No.50,Pg.No.123)			
	Add 12% For area weightage (Mangalore City)		7.92	
	Sub Total		1070.22	
	Maintenance- 3rd year escalation of 12%		128.43	
		Rate	1198.65	Rm
	Maintenance for 3rd Year:			
32	Providing and Fixixng Spacers for Power Ducts of size 225 mm,	to be p	laced at an in	terval of 1.5
32	meter. Spacers shall be made of ABS raw material.			
	(Market rate)			
	Basic Rate		1003	
	Maintenance- 3rd year escalation of 12%		80.24	
		Rate	1083.24	Nos.

	Maintenance for 3rd Year:			
	Providing and Fixixng Spacers for Power Ducts of size 160 mm,	to he n	laced at an in	terval of 1.5
33	meter. Spacers shall be made of ABS raw material.	ю во р	lacca at all in	101741 01 1.0
	(Market rate)			
	Basic Rate		1947	
	Maintenance- 3rd year escalation of 12%		233.64	
		Rate	2180.64	Nos.
	Maintenance for 2nd Voca			
	Maintenance for 3rd Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubric	cant inno	r layer for ICT	fibro cables
	comforming to ASTMF 2160 and /or equivalent indian standard a		•	
34	loading and unloading at both destination and rolling, lowering in			
	jointing of pipe etc.Complete.			
	(Market Rate)			
	Basic Rate		685	
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item		20	
	No.50,Pg.No.123)		36	
	Add 12% For area weightage (Mangalore City)		4.32	
	Sub Total		725.32	
	Maintenance- 3rd year escalation of 12%		87.04	
		Rate	812.36	Rm
	Maintenance for 3rd Year:			al far
	Providing and laying heavy duty cobble stones 60mm thick, using manufacture of blocks of approved size, shape and colour with a r			
	281 kg per sqm over 30mm thick sand bed (average thickness) at			
35	having 3 tons compaction force thereby forcing part of sand under			
	joints, final compaction of paver surface joints into its final level, in			
	and HOM of machineries complete as per specifications.	3 :		-,
	(Page No 101,SI No : 14.6)			
	Basic rate		1056.00	
	Maintenance- 3rd year escalation of 12%		126.72	
	Add 10% For area weightage (Mangalore City)	<b>D</b> (	118.27	
		Rate	1300.99	Sqm
	Maintenance for 3rd Year:			
	Providing and laying heavy duty Tactile Tiles (Direction and Stop ti	iles-300 x	( 300 mm) 60n	nm thick
	and Yellow in colour, using cement and course sand for manufact			
	shape with a minimum compressive strength of 281 kg per sqm ov	er 30mm	thick sand be	d (average
36	thickness) and compacting with plate vibrator having 3 tons comp			
	sand underneath to come up in between joints, final compaction of	•	•	
	level, including cost of materials, labour and HOM of machineries	complete	as per specifi	cations.
	(Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer	1		
	Sr.No.12		912.00	
	Maintenance- 3rd year escalation of 12%		109.44	
	,	Rate	1021.44	Sqm
				•
	Maintenance for 3rd Year:			
	Providing and laying heavy duty cobble stones 75mm thick, u	•		
	manufacture of blocks of approved size, shape and colour with a		•	•
27	281 kg per sqm over 30mm thick sand bed (average thickness )			
37	having 3 tons compaction force thereby forcing part of sand unlimited final compaction of payer surface in the interior in the final level.			
	joints, final compaction of paver surface joints into its final level,	includin	g cost of mate	eriais, labour
	and HOM of machineries complete as per specifications. (Page No 101,SI No : 14.7)			
	(1 age No 101,01No. 14.7)			
	Basic rate		1114	

	Maintenance- 3rd year escalation of 12%		133.68	
	Add 10% For area weightage (Mangalore City)		124.77	
		Rate	1372.45	Sqm
	Maintenance for 3rd Year:			
	KSRRB M500-17. Providing and laying dense graded bit			•
	aggregates of specified grading, premixed with VG30 grade bits	uminous bi	nder and, trai	nsporting th
	hot mix to work site, laying to the required grade, level and alig	nment, roll	ling with smo	oth wheele
38	vibratory and tandem rollers to achieve the desired compa-	ction as p	er MORTH 1	able 500-1
	complete in all respects complete as per specifications Mo	DRTH Spe	cification No	. 507 -usin
	100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 I			
	Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)			
	Basic rate		7839	
	Maintenance- 3rd year escalation of 12%		940.68	
	Add 10% For area weightage (Mangalore City)		877.97	
	Add 10% For area weightage (Mangalore City)	Rate	9657.65	Cum
		Kale	9057.05	Cum
	Maintenance for 3rd Year:			
		امنطه مسمس	مراص عمل ملائيين	ساميد عممام
	KSRRB M500-19. Providing and laying bituminous concrete 40			
	crushed aggregates of specified grading, premixed with bitumin		·	
39	hot mix to work site, laying with a paver finisher to the required g		•	•
00	smooth wheeled, vibratory and tandem rollers to achieve the			
	specification clause No. 500.9 complete in all respects comp			
	Specification No. 509 - using40/60 TPH capacity H.M.P. with N	lechanical	Paver Gr-II (	30 mm to 4
	mm) with 6 % VG-40 Bitumen			
	Basic rate		8761	
	Maintenance- 3rd year escalation of 12%		1051.32	
	Add 10% For area weightage (Mangalore City)		981.23	
	(management end)	Rate	10793.55	Cum
	Maintenance for 3rd Year:			
	KSRRB M800 Road markers / Road stud KSRRB M800-35. Pr	oviding an	d fixina of roa	ad stud 100
	100 mm, diecast in aluminium, resistant to corrosive effect of sa			
40	installed in concrete or asphaltic surface by drilling hole 30 mm u	•		
	a suitable bituminous grout or epoxy mortar, all as per BS:	•		
	specifications	- F		, I
	Basic rate		289	
	Maintenance- 3rd year escalation of 12%		34.68	
	Add 10% For area weightage (Mangalore City)		32.37	
	/ rad 10701 of area weightage (Mangalore Oily)	Rate	356.05	Nos
		Rate	330.03	1403.
	Maintenance for 3rd Year:			
		oflootrioina	Class Boods	on Conorod
	Road Marking with hot applied Thermoplastic Compound with R			
	Surface: Providing and laying of hot applied thermoplastic			
41	reflectorising glass beads at 250 gms and 2 ltr of primer policy and the state of primer poli	•		
	exclusive of surface applied glass beads as per IRC:35.The fini			uniform ar
	free from streak and holes complete as per specifications.MORT	H specifica	ation ino.803	
	(Page No 192,SI No : 24.57)			
	,	<u>,</u>		
	Basic Rate		429	
	,			
	Basic Rate		429	
	Basic Rate Maintenance- 3rd year escalation of 12%	Rate	429 51.48	Sqm
	Basic Rate Maintenance- 3rd year escalation of 12%	Rate	429 51.48 48.05	
	Basic Rate  Maintenance- 3rd year escalation of 12%  Add 10% For area weightage (Mangalore City)	Rate	429 51.48 48.05	
42	Basic Rate  Maintenance- 3rd year escalation of 12%  Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year:		429 51.48 48.05 <b>528.53</b>	Sqm
42	Basic Rate  Maintenance- 3rd year escalation of 12%  Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year:  Operation and Maintenance for eToilets Stainless Steel Public N		429 51.48 48.05 <b>528.53</b>	Sqm
42	Basic Rate  Maintenance- 3rd year escalation of 12%  Add 10% For area weightage (Mangalore City)  Maintenance for 3rd Year:		429 51.48 48.05 <b>528.53</b>	Sqm

Page 173

	IM-1-(		7044						
	Maintenance- 3rd year escalation of 12%		7344						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer	Rate	68544	Nos.					
	Sr.No.1	Mato	00044	1100.					
	Maintenance for 3rd Year:		d'ann at and land English						
43	Providing and fixing of S.S. Bollards(SS304) on footpath as specifi	ea ana	airected by Eng	ıneer -ın					
	charge								
	(NON SOR Item)	ı	T						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		4500.00						
	Sr.No.13								
	Maintenance- 3rd year escalation of 12%		540						
		Rate	5040	Nos.					
	Maintenance for 3rd Year:								
44	Providing and fixing of railing as detail design in MS HOLLOW SE		, ,						
77	be approved ), with vertical support of 0.9m @2.2mc/c , all comple	ete to the	satisfaction of	the					
	Landscape architect.(Non SOR Item)								
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		100000.00						
	Sr.No.26		100000.00						
	Maintenance- 3rd year escalation of 12%		12000						
		Rate	112000	MT					
	Maintenance for 3rd Year:								
	Excavation and removal of silt and silt mixed with sand in slussy co	ondition f	rom canal bed	including					
	disposing off the same in spoil bank or on the canal embankment i	in lavers	as directed etc.	., comple					
				•					
45	· · · · · · · · · · · · · · · · · · ·	•	ncluding cost of	with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all					
45	with lead upto 50 m and all lifts. For Desilting of drains and grit cha	ambers ii		f all					
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la	ambers in abour cha	rges including						
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per	ambers in abour cha	rges including						
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.	ambers in abour cha	rges including Irawing, technic						
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate	ambers in abour cha	rges including Irawing, technic						
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.	ambers in bour cha design, d	trges including lrawing, technic 179.00 21.48	cal					
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate	ambers in abour cha	rges including Irawing, technic						
45	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%	ambers in bour cha design, d	trges including lrawing, technic 179.00 21.48	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:	ambers in bour cha design, d	179.00 21.48 200.48	cal					
45	with lead upto 50 m and all lifts. For Desilting of drains and grit charmaterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b	ambers in bour cha design, d	179.00 21.48 200.48	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:	ambers in bour cha design, d	179.00 21.48 200.48	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth	mbers in bour char design, des	179.00 21.48 200.48	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit charmaterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth	mbers in bour char design, des	179.00 21.48 200.48 itial Lead	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Earth  Baisc rate	mbers in bour char design, des	179.00 21.48 200.48 itial Lead .28x10km 25.60	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-	mbers in bour char design, des	179.00 21.48 200.48 itial Lead	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit charmaterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)	mbers in bour char design, des	179.00 21.48 200.48 itial Lead .28x10km 25.60 57.00	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-	mbers in bour char design, des	179.00 21.48 200.48 itial Lead .28x10km 25.60 57.00 82.60	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit charmaterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)	mbers in bour char design, des	179.00 21.48 200.48 itial Lead .28x10km 25.60 57.00	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)  Sub Total-1  Add 10% For area weightage (Mangalore City)	mbers in bour char design, des	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City) Sub Total-2	mbers in bour char design, des	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)  Sub Total-1  Add 10% For area weightage (Mangalore City)	Rate  eyond in	179.00 21.48 200.48 itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9	Nos.					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City) Sub Total-2	mbers in bour char design, des	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86	cal					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City) Sub Total-2	Rate  eyond in	179.00 21.48 200.48 itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9	Nos.					
	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City) Sub Total-2	Rate  eyond in	179.00 21.48 200.48 itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9	Nos.					
	with lead upto 50 m and all lifts. For Desilting of drains and grit chamaterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%	Rate  Rate  Rate	179.00 179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1)  Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:	Rate  Rate  Rate	179.00 179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Debris	Rate  Peyond in  Rate  Reyond in	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76  itial Lead	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km b Item No 17.4 KSRRB M100-4.1-Debris  Debris	Rate  Peyond in  Rate  Reyond in	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76  itial Lead	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Debris  Debris  Baisc rate	Rate  Peyond in  Rate  Reyond in	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76  itial Lead	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Debris  Debris  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-4.1-Debris)  Debris  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-4.1-Debris)	Rate  Peyond in  Rate  Reyond in	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76  itial Lead  .30x10Km 26.00	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Debris  Debris  Baisc rate	Rate  Peyond in  Rate  Reyond in	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76  itial Lead	Nos.					
46	with lead upto 50 m and all lifts. For Desilting of drains and grit characterials, scaffolding HOM of machineries with all lead and lifts, la implementation of Environmental and Social Safeguards & as per specifications and directions of Engineer-in-charge.  Basic Rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Earth  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-1) Sub Total-1  Add 10% For area weightage (Mangalore City)  Sub Total-2  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Extra Lead for Disposing off unserviceable materials upto 10 Km bitem No 17.4 KSRRB M100-4.1-Debris  Debris  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-4.1-Debris)  Debris  Baisc rate  Add Loading and unloading charges(Item No 17.1 KSRRB M100-4.1-Debris)	Rate  Peyond in  Rate  Reyond in	179.00 21.48 200.48  itial Lead  .28x10km 25.60 57.00 82.60 8.26 90.86 10.9 101.76  itial Lead  .30x10Km 26.00	Nos.					

	Add 10% For area weightage (Mangalore City)		8.3	
	Sub Total-2		91.30	
	Maintenance- 3rd year escalation of 12%		10.96	
	·	Rate	102.26	Cum
	Lighting Poles		1	
	Maintenance for 3rd Year: Dismantling of pole/ street light standard/ strut embedded in cemer	nt concre	te	
48	foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.22		1,295	
	Maintenance- 3rd year escalation of 12%		155.4	
	Maintenance ord year escalation of 1270	Rate	1450.4	Nos.
		Nate	1430.4	1403.
49	Maintenance for 3rd Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 meters long hot dip Galvanise grade S 355 JO steel plate for shaft, IS 2062 for base plate with or suitable boards, bakelite sheet and MCBs as per IS specifications m/sec for 5 m pole in single section and single joint welded as per dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable long J bolts along with template and the pole shall be hot dip galvates than 65 micron as per ASTM - A123 and 153 etc., (excluding fappended (Ref Electrical SOR SI No. 5.14.7)  Basic rate  Maintenance for 3rd Year: Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanised grade S 355 JO steel plate for shaft, IS 2062 for base plate with occurred bakelite short and MCRs as par IS specifications.	or opening suitable of the same of the sam	g arrangement for wind speed IS 10178 AWC plate and 4 no single dipping on) as per draw 17118 2054.16 19,172.16 nal pole with Eg arrangement	t, icluding I of 47 S having s. of with not ving  Nos.  3SE 10025 t, icluding
50	suitable boards, bakelite sheet and MCBs as per IS specifications m/sec for 5 m pole in single section and single joint welded as per dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable s	IS 9595/	IS 10178 AW	
	long J bolts along with template and the pole shall be hot dip galva less than 65 micron as per ASTM - A123 and 153 etc., (excluding fappended (Ref Electrical SOR SI No. 5.14.5)		single dipping on) as per draw	s. of with not
	less than 65 micron as per ASTM - A123 and 153 etc., (excluding tappended (Ref Electrical SOR SI No. 5.14.5)  Basic rate		single dipping on) as per draw 12420	s. of with not
	less than 65 micron as per ASTM - A123 and 153 etc., (excluding tappended (Ref Electrical SOR SI No. 5.14.5)	oundatio	single dipping on) as per draw 12420 1490.4	s. of with not ving
51	less than 65 micron as per ASTM - A123 and 153 etc., (excluding tappended (Ref Electrical SOR SI No. 5.14.5)  Basic rate	Rate ed Octagor openisuitable is 9595/II S 9595/II n single	12420 1490.4 13,910.40 onal pole with ng arrangeme for wind speed \$ 10178 AWG plate and 4 no dipping with no	Nos.  BSE 10025 nt, icluding of 47 having s. of long Jot less than
51	less than 65 micron as per ASTM - A123 and 153 etc., (excluding fappended (Ref Electrical SOR SI No. 5.14.5)  Basic rate  Maintenance- 3rd year escalation of 12%  Operation & Maintenance for 3rd Year: Lighting Pole, 4 m  Fabrication, supply and erection of 4 meters long hot dip Galvanise grade S 355 JO steel plate for shaft, IS 2062 for base plate with do suitable boards, bakelite sheet and MCBs as per IS specifications m/sec for 5 4 pole in single section and single joint welded as per I dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable bolts along with template and the pole shall be hot dip galvanized i 65 micron as per ASTM - A123 and 153 etc., (excluding foundation (Ref Electrical SOR SI No.5.14.2)	Rate ed Octagor openisuitable is 9595/II S 9595/II n single	12420 1490.4 13,910.40 onal pole with ng arrangeme for wind speed \$ 10178 AWG plate and 4 no dipping with no drawing apper	Nos.  BSE 10025 nt, icluding of 47 having s. of long Jot less than
51	less than 65 micron as per ASTM - A123 and 153 etc., (excluding fappended (Ref Electrical SOR SI No. 5.14.5)  Basic rate  Maintenance- 3rd year escalation of 12%  Operation & Maintenance for 3rd Year: Lighting Pole, 4 m  Fabrication, supply and erection of 4 meters long hot dip Galvanise grade S 355 JO steel plate for shaft, IS 2062 for base plate with do suitable boards, bakelite sheet and MCBs as per IS specifications m/sec for 5 4 pole in single section and single joint welded as per I dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable bolts along with template and the pole shall be hot dip galvanized i 65 micron as per ASTM - A123 and 153 etc., (excluding foundation (Ref Electrical SOR SI No.5.14.2)	Rate ed Octagor openisuitable is 9595/II S 9595/II n single	12420 1490.4 13,910.40 onal pole with ng arrangeme for wind speed \$ 10178 AWG plate and 4 no dipping with no drawing apper	Nos.  BSE 10025 nt, icluding of 47 having s. of long Jot less than

	Maintenance for 3rd Year:			
	Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for	outdoor	luminaries an	d mounted
52	on Octagonal pole using necessary bolts, nuts, etc. complete	outuoo.	rannianos an	a mountou
	Double Cross arm - 1500 mm			
	(Ref Electrical SOR SI No.5.18.5)			
	Basic rate		3540	
	Maintenance- 3rd year escalation of 12%		424.8	
	,	Rate	3,964.80	Nos.
	Operation & Maintenance for 3rd Year:			
	Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for	outdoor	luminaries an	d mounted
53	on Octagonal pole using necessary bolts, nuts, etc. complete			
	Single Cross arm - 1500 mm			
	(Ref Electrical SOR SI No.5.18.2)			
	Basic rate		2400	
	Maintenance- 3rd year escalation of 12%		288	
	Ivialitie natice- ord year escalation of 1276	Rate	2,688	Nos.
	Maintenance for 3rd Year:	Nate	2,000	1405.
	Painting of Existing street light pole after scrapping the old paint ar	nd nainte	d with suitable	e colour
54	enamel including coping/footing of the pole8mtr and above street	•		<del>s</del> coloui
	(Ref Electrical SOR SI No.16.28.3)	light poi	C	
	Basic rate		620	
	Maintenance- 3rd year escalation of 12%		74.4	
	Ivialite latice- ord year escalation of 12 /6	Rate	694	Nos.
	Oudoor Box and Switch Gear	Nate	094	NOS.
	Maintenance for 3rd Year:			
		how for m	mauntina MCI	2/Contactors
55	Supply, installation, testing and commissioning of outdoor junction with all required accessories and componenets	ו וטו גטט	nounting MC	5/Contactors
	with all required accessories and components			T
	Price list (Considering 30% discount , 18% GST & 10% profit)		11782.92	
	Maintenance- 3rd year escalation of 12%		1413.95	
	Ivialitie nance- ord year escalation of 1276	Rate	13,197	
		Nate	13,197	1403.
	Maintenance for 3rd Year:			
	Supply and fixing of miniature circuit breaker on exisiting board usi	na naca	seasan, fivina	material and
	'C' type curve, indicator ON/OFF, energy cross-3 with short circuit I			
56	complete wiring as required confirming to IEC 60898	Jicakiiig	capacity of 1	
	5- 32A TPN			
	Electrical SOR- 6.16.5)			
	Basic rate		1547	
	Maintenance- 3rd year escalation of 12%		185.64	
	maniferiance era year eccanation of 1270	Rate	1,733	
			.,,,,	
	LT Cable			
	Maintenance for 3rd Year:	<u> </u>	1	I
	Supplying of 1.1 kV LT cable having aluminium conductor PVC ins	ulated. e	extruded inner	sheathed.
	galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as			
57	PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988	•		
	4 Core x16 Sq.mm PVC Aluminium Conductor,		<b>J -</b>	
	(Ref Electrical SOR SI No.7.5,7.5.4)			
	Basic rate		117	
	Maintenance- 3rd year escalation of 12%		14.04	
		Rate	131.04	Rm

Supply and drawing flexible multicore cable with electrolyte grade flexible copper with low conductor confirming to Table 3 class 5 of ISs.13o.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)  Basic rate		Maintenance for 3rd Year:			
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)  Basic rate					
working Voilage up to 11 UV as per Is-5947-1990 and conforming to GIP of Group A.  30 x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  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)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 1.36  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  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)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Chemical Earthing for grounding,condulits,IC cut outs and otherequipmentson the mter boardby usir 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)  Basic rate  Maintenance for 3rd Year:  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)  Basic rate  Maintenance for 3rd Year:  Supplying and stacksing of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). ((No. SOR Item)  Maintenance- 3rd year escalation of 12%  Maintenance- 3rd	58				uitable for
Basic rate 91.39 Rm  Maintenance for 3rd Year: Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 15 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6) Basic rate 11.31  Maintenance for 3rd Year: Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 12.67 Nos.  Maintenance or 3rd Year: 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) Basic rate 3.12 Maintenance or 3rd Year: Maintenance or 3rd Year: Chemical Earthing for grounding conduits, IC cut outs and otherequipmentson the mter boardby usin copper /SS rod with earth enhancing backfill compound which is non corrosive 1.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) Basic rate 5500 Maintenance or 3rd Year: 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) Basic rate 91.55 Maintenance or 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (No. SOR Item) Rate Approved as per EOI by MD MSCL Mangalore, Refer 5.No.27 Maintenance - 3rd year escalation of 12% Maintenance - 3rd year escalation of	00		to GTP o	of Group A.	
Maintenance or 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 15 sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6) Basic rate  Maintenance or 3rd Year: Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 1.36  Maintenance for 3rd Year: 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) Basic rate Maintenance 3rd year escalation of 12%  Maintenance for 3rd Year: Chemical Earthing for grounding.conduits,IC cut outs and otherequipmentson the mter boardby usin 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) Basic rate  Maintenance for 3rd Year: 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) Basic rate  Maintenance for 3rd Year: Supply and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer sn.No.27 Maintenance-3rd year escalation of 12%		3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)			
Maintenance for 3rd Year:  Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sg mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate		Basic rate		81.6	
Maintenance for 3rd Year:  Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sum PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)  Basic rate		Maintenance- 3rd year escalation of 12%		9.79	
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)  Basic rate			Rate		Rm
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16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	59		point for v	vire of following	SIZES
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Maintenance for 3rd Year: 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)  Basic rate				11.31	
Maintenance for 3rd Year: 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)  Basic rate 3.12  Maintenance- 3rd year escalation of 12% 0.37  Maintenance for 3rd Year: Chemical Earthing for grounding, conduits, IC cut outs and otherequipmentson the mter boardby usir 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)  Basic rate 5500  Maintenance- 3rd year escalation of 12% 660  Maintenance- 3rd year escalation of 12% 660  Maintenance for 3rd Year: 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)  Basic rate 19.5  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore, Refer 5r.No.27  Maintenance- 3rd year escalation of 12% 16.8		Maintenance- 3rd year escalation of 12%		1.36	
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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)  Basic rate 3.12  Maintenance- 3rd year escalation of 12% 0.37  Maintenance for 3rd Year:  Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby usir 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)  Basic rate 5500  Maintenance- 3rd year escalation of 12% 660  Maintenance for 3rd Year:  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)  Basic rate 5500  Maintenance- 3rd year escalation of 12% 2.34  Maintenance- 3rd year escalation of 12% 2.34  Maintenance- 3rd year escalation of 12% 2.34  Maintenance for 3rd Year:  Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment).  (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore, Refer St. No. 27  Maintenance- 3rd year escalation of 12% 16.8					
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Ref Electrical SOR SI No.7.21.2)   Basic rate	Юυ	2.5 sq. mm copper conductor			
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Ref Electrical SOR Pg.No.64,SI No.7.23.6)   Basic rate	61	Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the state of	uipments	3.49 on the mter boasive	
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Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: 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)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  140.00  16.8	61	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the them. The superior of the conductive of the co	uipments	3.49 on the mter boasive	
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Maintenance for 3rd Year: 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)  Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  16.8	61	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the the conductive, potential, to permissible, limits, superior, fault, contoxic, weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate	uipments	on the mter boasive e capacity,non	
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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)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year:  Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  140.00	61	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the the conductive, potential, to permissible, limits, superior, fault, contoxic, weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate	uipments non corro onductive	3.49 on the mter box sive e capacity,non  5500 660	ardby usin
wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  16.8	61	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the maintenance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%	uipments non corro onductive	3.49 on the mter box sive e capacity,non  5500 660	ardby usin
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Maintenance- 3rd year escalation of 12%  Rate  2.34  Rate  21.84  Rmt  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  16.8		Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not the them. The provided in the compound which is not toxic, weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space	uipments non corro conductive  Rate	3.49 on the mter boasive e capacity,non  5500 660 6160 in conduits sys	ardby usin
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Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  140.00		Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and otherequence opper /SS rod with earth enhancing backfill compound which is next, thermally,conductive,potential,to permissible,limits,superior,fault,cotoxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3)  Basic rate	uipments non corro conductive  Rate	3.49 on the mter boasive e capacity,non  5500 660 6160 in conduits sys SWG	ardby usin
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Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead comple (earth measured in stacks will be reduced by 20% for payment).  (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  140.00		Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and otherequence opper /SS rod with earth enhancing backfill compound which is next, thermally,conductive,potential,to permissible,limits,superior,fault,cotoxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3)  Basic rate	Rate ner wires ers etc-8	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG	Kit
(earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  140.00		Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and otherequence copper /SS rod with earth enhancing backfill compound which is next, thermally,conductive,potential,to permissible,limits,superior,fault,cotoxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3)  Basic rate  Maintenance- 3rd year escalation of 12%	Rate ner wires ers etc-8	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG	Kit
(Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  To payment).  140.00		Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and otherequence opper /SS rod with earth enhancing backfill compound which is next, thermally,conductive,potential,to permissible,limits,superior,fault,cotoxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)  Basic rate  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3)  Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance- 3rd year escalation of 12%	Rate Per wires Pers etc-8	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84	Kit tem of
Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27  Maintenance- 3rd year escalation of 12%  140.00  16.8	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not thermally,conductive,potential,to permissible,limits,superior,fault,coxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with other wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and	Rate Per wires Pers etc-8	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84	Kit tem of
Sr.No.27  Maintenance- 3rd year escalation of 12%  16.8	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not thermally,conductive,potential,to permissible,limits,superior,fault,coxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with other wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and (earth measured in stacks will be reduced by 20% for payment).	Rate Per wires Pers etc-8	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84	Kit tem of
Sr.No.27  Maintenance- 3rd year escalation of 12%  16.8	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not thermally,conductive,potential,to permissible,limits,superior,fault,coxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with other wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and (earth measured in stacks will be reduced by 20% for payment).	Rate Per wires Pers etc-8	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84	Kit tem of
·	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is mathematic, weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with othe wiring) using necessasary suitable size clamps, nails, guttas/space (Ref Electrical SOR SI No.7.22.3) Basic rate  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Rate Per wires Pers etc-8	3.49 on the mter boasive e capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84  upto 5 k.m. lea	Kit tem of
Rate   156.80 Cum	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not intermally,conductive,potential,to permissible,limits,superior,fault,coxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space(Ref Electrical SOR SI No.7.22.3) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27	Rate Per wires Pers etc-8	3.49 on the mter boasive e capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84  upto 5 k.m. lea	Kit tem of
	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not intermally,conductive,potential,to permissible,limits,superior,fault,coxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space(Ref Electrical SOR SI No.7.22.3) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27	Rate Rate carriage	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84  upto 5 k.m. lea	Kit tem of  Rmt
	62	Maintenance for 3rd Year: Chemical Earthing for grounding,conduits,IC cut outs and othereque copper /SS rod with earth enhancing backfill compound which is not intermally,conductive,potential,to permissible,limits,superior,fault,coxic,weather resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supply and running GI conductor for grounding and (along with oth wiring) using necessasary suitable size clamps, nails, guttas/space(Ref Electrical SOR SI No.7.22.3) Basic rate Maintenance- 3rd year escalation of 12%  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Supplying and stacking of good earth at site including royalty and (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27	Rate Rate carriage	3.49 on the mter boasive capacity,non  5500 660 6160 in conduits sys SWG  19.5 2.34 21.84  upto 5 k.m. lea	Kit tem of  Rmt

	Maintenance for 3rd Year:	14000	D 14000 44 0	
C4	KSRRB M300-Supply at site of work well decayed farm yard man			
64	of work well decayed farm yard manure, from any available so charge including screening and stackin complete as per specif			
	308.2(Page No.152,SI.No.19.90)	ications.	MORTH Speci	incation No.
	Basic rate		204	
	Maintenance- 3rd year escalation of 12%		24.48	
	Add 10% For area weightage (Mangalore City)		22.85	
		Rate	251.33	Cum
65	Maintenance for 3rd Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fa KSRRB M300-1. Spreading of sludge farm yard manure or/ an (cost of sludge, farm yard manure or/and good earth to be pa specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	d good e	arth in require	d thickness
	Basic rate		103	
	Maintenance- 3rd year escalation of 12%		12.36	
	Add 100/ For orea weighters (Mangelers City)		44 54	
	Add 10% For area weightage (Mangalore City)		11.54	
	Add 10% For area weightage (Mangalore City)	Rate	126.90	Cum
66	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion sp charge (Non SOR item)	1	126.90	
66	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion sp charge	1	126.90	
66	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion sp charge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer	1	directed by th	
66	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion sp charge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	1	126.90 directed by th	
66	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion sp charge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	ecified or	126.90 directed by the 23.91 2.87	e Officer-in-
66	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion sp charge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	Rate or a period HOM of tall and S	directed by the 23.91 2.87 26.78 od of one year machineries vocial Safeguar	e Officer-in-  Cum  ar including with all lead
	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion specharge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Maintenance of lawns or Turfing of slopes (rough grassing) watering etc complete including cost of all materials, scaffolding and lifts, labour charges including implementation of Environment	Rate or a period HOM of tall and S	directed by the 23.91 2.87 26.78 od of one year machineries vocial Safeguar	e Officer-in-  Cum  ar including with all lead
	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion specharge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Maintenance of lawns or Turfing of slopes (rough grassing) watering etc complete including cost of all materials, scaffolding and lifts, labour charges including implementation of Environment design, drawing, technical specifications and directions of Engine	Rate or a period HOM of tall and S	directed by the 23.91 2.87 26.78 od of one year machineries vocial Safeguar ge.	e Officer-in-  Cum  ar including with all lead
	Maintenance for 3rd Year: Mixing earth and sludge or manure in the required proportion specharge (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance- 3rd year escalation of 12%  Maintenance for 3rd Year: Maintenance of lawns or Turfing of slopes (rough grassing) watering etc complete including cost of all materials, scaffolding and lifts, labour charges including implementation of Environment design, drawing, technical specifications and directions of Engine Basic rate	Rate or a period HOM of tall and S	directed by the 23.91 2.87 26.78 od of one year machineries vocial Safeguar ge.	e Officer-in-  Cum  ar including with all lead

	TURF			
68	Maintenance for 3rd Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.32		156.80	
	Maintenance- 3rd year escalation of 12%		18.82	
		Rate	175.62	Sqm
	IRRIGATION	<u> </u>	<u> </u>	<u> </u>
69	Maintenance for 3rd Year: Watering with tanker to landscape area and plants for one year	<u> </u>		
	Water Tanker =52 Rs/ Hour,One Year Cost=92 days x 3 hrs x 61rs/hr ( 365days-90 days of mansoon=275 days/3 days=92 days,consider watering at every 3 days)		16836	
	Mazdoor = 0.5 days x 446.20		20525.2	
	Add 10% For area weightage (Mangalore City)		2052.52	
	Maintenance- 3rd year escalation of 12%		4483.34	
		Rate	43897.06	Year
70	Maintenance for 3rd Year: supply and fixing of irrigation lines such that all the green areas a by means of drip irrigation for trees, sub surface for shrubs and la up sprinklers for lawn areas. (Equipment make - Rainbird or equiva All material used should be comply to BSI code. All the neces complete commissioning to be installed. (Non SOR Item)	awn area alent)	s / ground co	vers and pop
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.34		560.00	
	Maintenance- 3rd year escalation of 12%		67.2	
		Rate	627.20	Sqm

Assistant Engineer MSCL Mangaluru

**Executive Engineer MSCL Mangaluru** 

### Name of the Work :- Mangalore Smart City 8.4.0 Abstract for Maintenance of Road and Other Work for DPR 3 - 4th Year

	Specification	Unit	Total Qty.	Rate	Amount
	Civil Works				
1.00	Maintenance for 4th Year: Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	_	80.00	86.98	6,958
2.00	Maintenance for 4th Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)		3.68	1147.12	4,221
3.00	Maintenance for 4th Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	25.00	15.31	383
4.00	Maintenance for 4th Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	10.00	497.64	4,976
5.00	Maintenance for 4th Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)		0.35	447.88	157
6.00	Operation & Maintenance for 4th Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,SI No: 19.14)	Cum	137.50	52.32	7,194
7.00	Maintenance for 4th Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)	C	137.50	153.12	21,054
8.00	Maintenance for 4th Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sqm	200.00	7.66	1,532

	Specification	Unit	Total Qty.	Rate	Amount
9.00	Maintenance for 4th Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	5.00	7528.40	37,642
10.00	Maintenance for 4th Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)		18.38	2763.82	,50,799
11.00	Maintenance for 4th Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No: 4.10)	Cum	54.00	7908.65	4,27,067
12.00	Maintenance for 4th Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications.  Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)		540.00	335.59	1,81,219
13.00	Maintenance for 4th Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinary complete as per specifications. Specification No. KBS4.6.3. do with TMT bars Fe500	MT	4.32	90317.83	3,90,173
14.00	Maintenance for 4th Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305	Cum	61.25	710.91	43,543

	Specification	Unit	Total Qty.	Rate	Amount
15.00	Maintenance for 4th Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	12.25	5165.25	,63,274
16.00	Maintenance for 4th Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	17.00	4695.68	,79,827
17.00	Maintenance for 4th Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	30.63	7356.14	2,25,319
18.00	Maintenance for 4th Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Pmt	500.00	133.40	,66,700
19.00	Maintenance for 4th Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	500.00	422.36	2,11,180

	Specification	Unit	Total Qty.	Rate	Amount
20.00	Maintenance for 4th Year: Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).  (Precast C.C. kerb stone shall be approved by Engineer-in-charge).		1.55	20542.23	,31,840
21.00	Maintenance for 4th Year: Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1.95	537.20	,1,048
22.00	Maintenance for 4th Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,Sl No : 5.3)	Cum	0.83	537.20	,,446
23.00	Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-incharge.	Rmt	100.00	125.05	12,505
24.00	Maintenance for 4th Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	980.00	102.08	1,00,038
25.00	Maintenance for 4th Year:  P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	10.00	1063.72	10,637
26.00	Maintenance for 4th Year: Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item)	Nos.	10.00	4060.00	,40,600
27.00	Maintenance for 4th Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)		20.00	350.16	7,003
28.00	Maintenance for 4th Year: KSRB 11-18-17.1: 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. (PWD SR 2015-16,P.No.86, SI.No.12.89)		10.00	1059.08	10,591

	Specification	Unit	Total Qty.	Rate	Amount
29.00	Maintenance for 4th Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	10.00	6408.07	64,081
30.00	Maintenance for 4th Year:  Providing and laying Dia 225mm Power Duct Conduits with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years. (Market Rate)	Rmt	50.00	2289.10	1,14,455
31.00	Maintenance for 4th Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	50.00	1241.46	,62,073
32.00	Maintenance for 4thYear: Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)		34.00	1163.48	39,558
33.00	Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material.  (Market rate)		34.00	2258.52	,76,790
34.00	Maintenance for 4th Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	10.00	841.37	8,414
35.00	Maintenance for 4th Year:  Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.6)		170.00	1347.46	2,29,068
36.00	Maintenance for 4th Year: 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 30mm 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. (Non SOR Item)		27.00	1057.92	28,564

	Specification	Unit	Total Qty.	Rate	Amount
37.00	Maintenance for 4th Year:  Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101,SI No: 14.7)	Sqm	300.00	1421.46	4,26,438
38.00	Maintenance for 4th Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	6.00	10002.56	60,015
39.00	Maintenance for 4th Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	3.20	11179.04	35,773
40.00	Maintenance for 4th Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	50.00	335.24	16,762
41.00	Maintenance for4th Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)		2078.72	547.40	1137,891
42.00	Maintenance for 4th Year: Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	2.00	70992.00	1,41,984
43.00	Maintenance for 4th Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00	5220.00	5,220
44.00	Maintenance for 4th Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars (shop drawing to be approved), with vertical support of 0.9m @2.2mc/c, all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	0.30	116000.00	34,800
45.00	Maintenance for 4th Year: Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-incharge.		943.74	207.64	1,95,958

	Specification	Unit	Total Qty.	Rate	Amount
46.00	Maintenance for 4th Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	58.53	105.40	6,169
47.00	Maintenance for 4th Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Debris	Cum	9.38	105.91	,993
48.00	Electrical Works  Maintenance for 4th Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1.00	1502.20	1,502
49.00	Maintenance for 4th Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.	0.00	19856.88	,0
50.00	Maintenance for 4th Year: 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)	Nos.	1.00	14407.20	14,407
51.00	Operation & Maintenance for 4th Year: 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, icluding 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)	Nos.	1.00	8581.68	8,582
52.00	Maintenance for 4th Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1.00	4106.40	4,106
53.00	Maintenance for 4thYear: 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.	1.00	2784.00	2,784

	Specification	Unit	Total Qty.	Rate	Amount
54.00	Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00	719.20	1,32,333
55.00	Maintenance for 4th Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00	13196.87	13,197
56.00	Maintenance for 4th Year: 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.	1.00	1732.64	1,733
	LT Cable				
57.00	Maintenance for 4th Year: 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	600.00	135.72	81,432
58.00	Maintenance for 4th Year: 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	100.00	94.66	9466
59.00	Maintenance for 4th Year: 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	45.00	13.12	590
60.00	Maintenance for 4thYear: 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	40.00	3.62	145
	Earthing system				
61.00	Maintenance for 4th Year: 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	1.00	6380.00	6,380
62.00	Maintenance for 4th Year: 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	500.00	22.62	11,310
	Landcaping Works				
	SOIL MIXES and Ground Preparation				
63.00	Maintenance for 4th Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	36.00	162.40	5,846

	Specification	Unit	Total Qty.	Rate	Amount
64.00	Maintenance for 4th Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	27.00	260.30	7,028
65.00	Maintenance for 4th Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)		18.00	131.43	2,366
66.00	Maintenance for 4th Year: Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	1.20	27.74	33
	Soil preparation of Lawn				
67.00	Maintenance for 4th Year: KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 19.80)	Sqm	382.19	131.43	50,231
	TURF				
68.00	Operation & Maintenance for 4th Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	3.00	181.89	546
69.00	IRRIGATION Operation & Maintenance for 4th Year: Watering with tanker to landscape area and plants for one year	Year	1.00	45391.51	45,392
70.00	Operation & Maintenance for 4th Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees , sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	3.00	649.60	1,949
				Total	,51,24,290

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

Name of the Work :- Mangalore Smart City
8.4.1 M.S. For Maintenance of Road and Other Work for DPR 3 -4th Year

	8.4.1 M.S. For Maintenance of Road and Othe	- WOIK	IOI DEK 3	4iii i cai	I		
Sr.No.	Specification	Unit	No.	L	В	D	Qty.
	Civil Works						
1.00	Maintenance for 4th Year:  Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.( RA attached)	Sqm	1	40	2		80.00
2.00	Maintenance for 4th Year: KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)	Cum	1	3.5	3.5	0.3	3.68
3.00	Maintenance for 4th Year: KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	1	25			25.00
4.00	Maintenance for 4th Year: KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)	Cum	1	20	1	0.5	10.00
5.00	Maintenance for 4th Year: KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)		1	3	0.5	0.23	0.35
6.00	Maintenance for 4th Year: KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 1.00Km and complete as per specifications.  MORTH specification No.301(Including transporting charges, loading and unloading for lead 5km) (Page No 143,SI No : 19.14)	Cum	1.00	55	5	0.5	137.50
7.00	Maintenance for 4th Year: 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.(KPWD 16-17,SI No.2.11,Pg. No.6)		1.00	55	5	0.5	137.50
8.00	Maintenance for 4th Year: KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3.(KPWD 16-17,SI No.19.64,Pg. No.149)	Sqm	1.00	40		5	200.00
	Maintenance for 4th Year: KSRB 4-1.6; Providing and laying in position plain cement concrete of mix M15 Grade with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	1.00	10	5	0.1	5.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
10.00	Maintenance for 4th Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (table 400-2) KSRRB M400-7. Construction of granular sub-base by providing Coarse graded crushed stone aggregates of granite / trap / basalt material, speading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specifications clause 401 and Table 400-1 Grading VI.  (P.No.12, I.No. 4.6 of PWD SR 2015-16)		10.00	3.5	3.5	0.15	18.38
11.00	Maintenance for 4th Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls,return walls,walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No : 4.10)		1.00	300	0.2	0.9	54.00
12.00	Maintenance for 4th Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc.,and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour complete as per specifications. Specification No. KSB 4.6.2 (Page No 15,SI No : 4.28)		2.00	300		0.9	540.00
13.00	Maintenance for 4th Year: KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications.Specification No. KBS4.6.3. do with TMT bars Fe500		1.00	4.32			4.32
14.00	Maintenance for 4th Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305		10.00	3.5	3.5	0.5	61.25
15.00	Maintenance for 4th Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)		10.00	3.5	3.5	0.1	12.25
16.00	Maintenance for 4th Year: KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)	Cum	1.00	85	2	0.1	17.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
17.00	Maintenance for 4th Year: KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	10.00	3.5	3.5	0.25	30.63
18.00	Maintenance for 4th Year: Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	1.00	500			500.00
19.00	Maintenance for 4th Year: KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	1.00	500			500.00
20.00	Maintenance for 4th Year:  Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).  (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	1	15	0.1		1.55
	(RA Attached)						
21.00	Maintenance for 4th Year:  Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.03		1.95
22.00	Maintenance for 4th Year: Providin and fixing pre cast solid concrete water table(longitudinal gutter) as per the drawing,made out of CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Cum	1	70	0.01		0.83
23.00	Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Rmt	100				100.00
24.00	Maintenance for 4th Year: KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1)	Sqm	1	3500		0.28	980.00
25.00	Maintenance for 4th Year: P/F Square shape 600mmx450 mm precast R.C.C. manhole cover with frame (Rate analysis attached)	Nos.	10.00				10.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
26.00	Maintenance for 4th Year:  Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item)	Nos.	10.00				10.00
27.00	Maintenance for 4th Year: Providing gully pipe lowering,laying of PVC 100 mm dia pipes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No.41, Item No.7, KUWSDB SOR 2016-17)	Rmt	1.00	20.00			20.00
28.00	Maintenance for 4th Year: KSRB 11-18-17.1: 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. (PWD SR 2015-16,P.No.86, SI.No.12.89)		1.00	10			10.00
29.00	Maintenance for 4th Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29.1. Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings complete as per specifications. Case - I: Single row for one utility service (KPWD SOR 16-17, Item No.24.34, Pg.No.188)	Rmt	1	10.00			10.00
30.00	Maintenance for 4th Year: Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.  (Market Rate)	Rmt	1	50			50.00
31.00	Maintenance for 4th Year: Providing and laying Dia 160mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5,Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7.The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.(Market Rate)	Rmt	1	50			50.00
32.00	Maintenance for 4thYear: Providing and Fixixng Spacers for Power Ducts of size 225 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	34				34.00
33.00	Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, to be placed at an interval of 1.5 meter. Spacers shall be made of ABS raw material. (Market rate)	Nos.	34				34.00
34.00	Maintenance for 4th Year: Supplying 7-way 40mm HDPE pipe Multi-way Duct Silicore Lubricant inner layer for ICT fibre cables comforming to ASTMF 2160 and /or equivalent indian standard and conveying to work site including loading and unloading at both destination and rolling,lowering into trenches,laying true to line and jointing of pipe etc.Complete.  (Market Rate)	Rmt	1	10			10.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
35.00	Maintenance for 4th Year:  Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.	Sqm	1	85	2		170.00
36.00	(Page No 101,SI No : 14.6)  Maintenance for 4th Year:  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 30mm 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.  (Non SOR Item)	Sqm	1.00	90	0.3		27.00
37.00	Maintenance for 4th Year:  Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 30mm 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.  (Page No 101, SI No: 14.7)	Sam	1.00	200	1.5		300.00
38.00	Maintenance for 4th Year: KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No. 507 -using 100/120 TPH capacity H.M.P. with sensor paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.21.17.1,Page No.163)	Cum	2.00	8	2.5	0.15	6.00
39.00	Maintenance for 4th Year: KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-40 Bitumen	Cum	4.00	2.5	8	0.04	3.20
40.00	Maintenance for 4th Year: KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications	Nos.	50.00				50.00
41.00	Maintenance for4th Year: Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	0.50	4157.44			2078.72
42.00	Maintenance for 4th Year:  Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works BOQ Item No.45.	Nos	2.00				2.00
43.00	Maintenance for 4th Year: Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	Nos.	1.00				1.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
44.00	Maintenance for 4th Year: Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars ( shop drawing to be approved ),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect.(Non SOR Item)	MT	1.00	0.3			0.30
45.00	Maintenance for 4th Year: Excavation and removal of silt and silt mixed with sand in slussy condition from canal bed including disposing off the same in spoil bank or on the canal embankment in layers as directed etc., complete with lead upto 50 m and all lifts. For Desilting of drains and grit chambers including cost of all materials, scaffolding HOM of machineries with all lead and lifts, labour charges including implementation of Environmental and Social Safeguards & as per design, drawing, technical specifications and directions of Engineer-in-charge.	Cum	2.00	6741	0.7	0.1	943.74
46.00	Maintenance for 4th Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Earth	Cum	1.00	58.53			58.53
47.00	Maintenance for 4th Year: Extra Lead for Disposing off unserviceable materials upto 10 Km beyond initial Lead Item No 17.4 KSRRB M100-4.1-Debris	Cum	1.00	9.38			9.38
48.00	Electrical Works  Maintenance for 4th Year: Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required (Delhi analysis of rates E & M 2016, item 12.42, pg 395))	Nos.	1				1.00
49.00	Maintenance for 4th Year: Lighting Pole, 9 m Fabrication, supply and erection of 9 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. 5.14.7)	Nos.					0.00
50.00	Maintenance for 4th Year: 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)	Nos.	1				1.00
51.00	Maintenance for 4th Year: 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, icluding 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)		1				1.00
52.00	Maintenance for 4th Year: 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 Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	1				1.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
53.00	Maintenance for 4thYear: 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.	1				1.00
54.00	Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	184.00				184.00
55.00	Maintenance for 4th Year: Supply, installation, testing and commissioning of outdoor junction box for mounting MCB/Contactors with all required accessories and componenets	Nos.	1.00				1.00
56.00	Maintenance for 4th Year: 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.	1.00				1.00
	LT Cable  Maintenance for 4th Year: Supplying of 1.1 kV LT cable having aluminium conductor PVC insulated,						
57.00	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	1	600.00			600.00
58.00	Maintenance for 4th Year: 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	1	100.00			100.00
59.00	Operation & Maintenance for 4th Year: 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	45				45.00
60.00	Operation & Maintenance for 4thYear: 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	40				40.00
61.00	Earthing system  Maintenance for 4th Year: 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	1				1.00
62.00	Maintenance for 4th Year: 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	1	500			500.00
	Landcaping Works						
63.00	SOIL MIXES and Ground Preparation  Maintenance for 4th Year: Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	1	100	0.6	0.6	36.00

Sr.No.	Specification	Unit	No.	L	В	D	Qty.
64.00	Maintenance for 4th Year: KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	3	100	0.6	0.15	27.00
65.00	Maintenance for 4th Year: KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	Cum	3	100	0.6	0.1	18.00
66.00	Maintenance for 4th Year:  Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	3	100	0.04	0.1	1.20
	Soil preparation of Lawn						
67.00	Maintenance for 4th Year: KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications.  MORTH Specification No.307 (KSRRB 19.80)	Sqm	1.00	382.19			382.19
	TURF						
68.00	Maintenance for 4th Year: ZOYSIA JAPONICA ( MAT) (Non SOR Item)	Sqm	1	5	0.6		3.00
	IRRIGATION						
69.00	Maintenance for 4th Year: Watering with tanker to landscape area and plants for one year	Year					1.00
70.00	Maintenance for 4th Year: supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	1	5	0.6		3.00

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru

# Name of the Work :- Mangalore Smart City 8.4.2 R.A. For Maintenance of 4th Year - DPR 3

Maintenance for 4th Year: Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubb tect., disposal of unserviceable material to the dumping ground, for which payment shall be me separately and stacking of serviceable material within 50 metre lead as per direction of Engineer Charge, (RA attached)  Basic rate   68.16		8.4.2 R.A. For Maintenance of 4th Year	- DPR 3		
tet., disposal of unserviceable material to the dumping ground, for which payment shall be me separately and stacking of serviceable material within 50 metre lead as per direction of Engineer. Charge, (RA attached)  Basic rate  Maintenance-4th year escalation of 16%  Maintenance for 4th Year:  KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueums tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations a disposal of dismantled material stacking serviceble and unserviceable materials separately complete per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading lead 5km-Extra)  (Page No 138,Sl No : 18.47)  Basic rate  Maintenance-4th year escalation of 16%  Maintenance-4th year escalation of 16%  Maintenance for 4th Year:  KSRRB M200-Dismantlaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202.  (Page No 139,Sl.No.18.49)  Basic rate  Maintenance for 4th Year:  KSRRB M200-Dismantlaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by specifications.MORTH Specification No.202.  (Page No.139,Sl.No.18.49)  Basic rate  Maintenance for 4th Year:  KSRRB M200-Dismantlaling of existing structures like culverts, bridges, retaining walls and ot structure comprising of masonny, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material and graph of masonny, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material and graph of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and s		Maintenance for 4th Year:			
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Charge. (RA attached)  Basic rate 68.16  Maintenance- 4th year escalation of 16% 10.91  Add 10% For area weightage (Mangalore City) 7.91  Maintenance for 4th Year:  KSRRB M200 Dismantling of cement concrete pavement by mechanical means using pueums tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations a disposal of dismantled material stacking servicebale and unserviceable materials separately complete per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading lead 5km-Extra)  (Page No 138,SI No: 18.47)  Basic rate 899  Maintenance- 4th year escalation of 16% 143.84  Add 10% For area weightage (Mangalore City) 104.28  Maintenance for 4th Year:  KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications.MORTH Specification No.202.  (Page No. 139,S.I.No.18.49)  Basic rate 12.00  Maintenance 4th year escalation of 16% 1.92  Add 10% For area weightage (Mangalore City) 1.39  Maintenance 4th year escalation of 16% 1.92  Add 10% For area weightage (Mangalore City) 1.39  Maintenance 4th year escalation of 16% 1.92  Add 10% For area weightage (Mangalore City) 1.39  Maintenance for 4th Year:  KSRRB M200-13. 1. Dismantling of existing structures like culverts, bridges, retaining walls and of structure comprising of masonny, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cem Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18-20,Page No. 137)  Basic rate 390  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and of structure comprising of masonary, cement concrete, wood work, steel work, including T&P and	1	etc., disposal of unserviceable material to the dumping grour	nd, for w	hich payment	shall be made
Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Rate  86.98 Sqm  Maintenance for 4th Year:  KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueums tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations a disposal of dismantled material stacking serviceble and unserviceable materials separately complete per specifications MORTH specification No.202 (Including transporting charges, loading and unloading lead 5km-Extra)  (Page No 138,SI No : 18.47)  Basic rate  899  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-Dismantlaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications. MORTH Specification No.202.  (Page No.139,SI.No.18.49)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  1.39  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and ot structure comprising of masonny, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cem Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20, Page No.137)  Basic rate  Maintenance for 4th Year:  KSRRB M200-13.1 Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonny, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, dispos		separately and stacking of serviceable material within 50 metre	e lead a	s per direction	of Engineer-in
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Maintenance for 4th Year:  KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and ot structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cem Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate  390  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ot structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  15.31  Rmt  Rth  Rth  Rth  15.31  Rmt  Rth  Rth  Rth  15.31  Rth  Rth  Rth  Rth  15.31  Rth  Rth  Rth  15.31  Rth  Rth  Rth  Rth  Rth  Rth  Rth  Rt		·			
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KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cem Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  40.72			11410	10.01	
KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cem Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  40.72		Maintenance for 4th Year:			
structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Ceme Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,Sl No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  serviceable material with all first part of the service woodwork and the serviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,Sl No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage			arte brid	aes retaining v	valle and other
wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cemic Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  Wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage				•	
serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cemconcrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate 390  Maintenance- 4th year escalation of 16% 62.4  Add 10% For area weightage (Mangalore City) 45.24  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate 351  Maintenance- 4th year escalation of 16% 56.16  Add 10% For area weightage 40.72		· •		•	
Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPWD SOR 16-17,18.20,Page No.137)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  Jan 1390  Add 10% For area weightage	4				
Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  390  62.4  Add 20% For area weightage					
Maintenance- 4th year escalation of 16% Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16% Add 10% For area weightage  40.72		Concrete Grade M-15 &M-20. MORTH Specification No. 202 (KPV)	ID SOR	16-17,18.20,Pag	e No.137)
Maintenance- 4th year escalation of 16% Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16% Add 10% For area weightage  40.72					
Add 10% For area weightage (Mangalore City)  Rate  Waintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  40.72		Basic rate		390	
Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,Sl No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  Aunual Maintenance 440.72		Maintenance- 4th year escalation of 16%		62.4	
Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  Add 10% For area weightage		Add 10% For area weightage (Mangalore City)		45.24	
Maintenance for 4th Year:  KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and ott structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  40.72		See See See See See See See See See Se	Rate		Cum
KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and oth structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  40.72			rtuto		
KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and oth structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  40.72		Maintenance for 4th Vear:		L	
structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffold where we have a serviceable material and stacking serviceable s			arta brid	acc retaining v	valla and athe
wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking serviceable material with all lifts complete as per specifications. i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16% Add 10% For area weightage  351  40.72		1		•	
serviceable material with all lifts complete as per specifications.  i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  351  56.16  40.72	_				
i)Dismantaling Brick/Tile work B.In Cement mortar (Page No 137,SI No : 18.23)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  351  56.16  40.72	5		unservice	eable material a	nd stacking th
(Page No 137,Sl No : 18.23)         Basic rate       351         Maintenance- 4th year escalation of 16%       56.16         Add 10% For area weightage       40.72		1			
Basic rate 351 Maintenance- 4th year escalation of 16% 56.16 Add 10% For area weightage 40.72		i)Dismantaling Brick/Tile work B.In Cement mortar			
Maintenance- 4th year escalation of 16% 56.16 Add 10% For area weightage 40.72		(Page No 137,SI No : 18.23)			
Maintenance- 4th year escalation of 16% 56.16 Add 10% For area weightage 40.72		Basic rate		351	
Add 10% For area weightage 40.72		Maintenance- 4th year escalation of 16%			
nate 447.00 Cum			Rate		Cum
				TT1.00	vuiii

6	Maintenance for 4th Year: KSRRB M300-14. Excavation for roadwork in all types of soil capacity including cutting and loading in tippers,trimming botto requirements of lines and grades and cross sections,and transp 1.00Km and complete as per specifications.	m and s orting dis	side slopes,in a sposal location	accordance with up to a lead of
	MORTH specification No.301(Including transporting charges, loadi (Page No 143,Sl No : 19.14)	ng and ui	nloading for lea	d 5km)
	Basic rate		41	
	Maintenance- 4th year escalation of 16%		6.56	
	Add 10% For area weightage (Mangalore City)		4.76	
		Rate	52.32	Cum
7	Maintenance for 4th Year: KSRB 2-4: Refilling available earth around pipe lines, cables in compacting each deposited layer by ramming after watering wi including cost of all labour complete as per specifications.(KPWD 2	th lead ι	upto 50m. and	lift upto 1.5 m.
	Basic rate		120	
	Maintenance- 4th year escalation of 16%		19.2	
	Add 10% For area weightage (Mangalore City)		13.92	
		Rate	153.12	Cum
8	KSRRB 300-Compaction KSRRB 300-58. Compaction of original g 10 tonnes power roller including filling in depression occuring durin HOM of machinery complete as per specifications. MORTH / Chap No.149)	g rolling i	ncluding cost o	f all labour,
	Basic rate		6	
	Maintenance- 4th year escalation of 16%		0.96	
	Add 10% For area weightage (Mangalore City)		0.7	
		Rate	7.66	Sqm
9	Maintenance for 4th Year: KSRB 4-1.6; Providing and laying in position plain cement cond 240kgs, with 20mm and down size graded granite metal coal aggregtes @ 0.459cum, machine mixed, concrete laid in layer compacted, in foundation, plinth and cills, ncluding cost of all mate complete as per specifications. Specification No. KBS 4.1, 4.2. (P.I.)	rse aggr ers not e erials, lab	egates @ 0.69 exceeding 15 o oour, HOM of m	ocum and fine cms. thick, well achinery, curing
	Basic Rate		5900	
	Maintenance- 4th year escalation of 16%		944	
	Add 10% For area weightage (Mangalore City)		684.4	
		Rate	7528.40	Cum
10	Maintenance for 4th Year: KSRRB 400 Granular Sub-Base with Coarse Graded Material (tak of granular sub-base by providing Coarse graded crushed ston material, speading in uniform layers with motor grader on prepared with rotavator at OMC, and compacting with vibratory roller to achi MORTH specifications clause 401 and Table 400-1 Grading VI. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	e aggred d surface	gates of granite, mixing by mix lesired density,	e / trap / basalt in place method
	Basic Rate		2166	
	Maintenance- 4th year escalation of 16%		346.56	
	Add 10% For area weightage (Mangalore City)		251.26	
		Rate	2763.82	Cum
		Ī	İ	i l

#### Maintenance for 4th Year: KSRB 4.2.1: Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @340Kgs, with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation for footings, pedastals, retaining 11 walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, blocks,anchor blocks & plinths etc.,Including labour,HOM cost of machinery, curing, complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No : 4.10) Basic Rate 6198 Maintenance- 4th year escalation of 16% 991.68 Add 10% For area weightage (Mangalore City) 718.97 Rate 7908.65 Cum Maintenance for 4th Year: KSRB 4.6.1 Providing and removing centering, shuttering, strutting, propping etc., and removal of formwork for foundations, footings, bases of columns for mass concrete including cost of all materials,labour 12 complete as per specifications. Specification No. KSB 4.6.2 (Page No 15, SI No : 4.28) Basic Rate 263 Maintenance- 4th year escalation of 16% 42.08 Add 10% For area weightage (Mangalore City) 30.51 Rate 335.59 Sqm Maintenance for 4th Year: KSRB 4.9.2 : Providing T.M.T steel reinforcement for RCC work including straighting, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design 13 (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinary complete as per specifications. Specification No. KBS4.6.3. do with TMT bars Fe500 Basic Rate 70782 Maintenance- 4th year escalation of 16% 11325.12 Add 10% For area weightage (Mangalore City) 8210.71 Rate 90317.83 MT Maintenance for 4th Year: KSRRB M300-Construction of Subgrade. KSRRB M300-55. Construction of sub-grade with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and 14 compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory rollercompaction by vibratory roller to 97% of proctors density) MORTH Specification No. 305 Basic Rate 513 Maintenance- 4th year escalation of 16% 82.08 Add 20km lead (17.4 KSRRB M100-4.1-Cost of haulage excluding loading and unloading MORTH-100/Chapter 1-case 1-Surface 51.2 Road)=2.0 Rs/ Tkm x 1.28 T x 20km

646.28

64.63

710.91

Cum

Rate

Sub Total

Add 10% For area weightage (Mangalore City)

### Maintenance for 4th Year:

KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes double drum vibratory roller,finishing and curing complete as per specifications.Morth specification No.601

(Page No 176, SI No : 22.1)

15

16

17

18

Basic Rate		4048	
Maintenance- 4th year escalation of 16%		647.68	
Add 10% For area weightage (Mangalore City)		469.57	
	Rate	5165.25	Cum

# Maintenance for 4th Year:

KSRRB M600-1.Construction of dry lean cement concrete mix M15 with 1:5:10 OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content to be determined during trail length construction, concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,Manually laid and compacting with palte compactor,finishing and curing complete as per specifications.Morth specification No.601 (RA attached)

	Rate	4695.68	Cum
Add 10% For area weightage (Mangalore City)		426.88	
Maintenance- 4th year escalation of 16%		588.8	
Basic Rate		3680	

# Maintenance for 4th Year:

KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form paver spread,compacted and finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints,including groove cutting chrges, joints filler,separation memberane, sealent primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie rod, admixtures as approved, curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602.do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)

Basic Rate		5765	
Maintenance- 4th year escalation of 16%		922.4	
Add 10% For area weightage (Mangalore City)		668.74	
	Rate	7356.14	Cum

## Maintenance for 4th Year:

Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)

Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.2		115	
Maintenance- 4th year escalation of 16%		18.4	
	Rate	133.4	Rmt

Page 200

23	Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage  Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all mawith all lead and lifts, labour charges including implementation of as per design, drawing, technical specifications and directions of Essic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage	Environme	ntal and Social				
	Maintenance- 4th year escalation of 16% Add 10% For area weightage  Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all mawith all lead and lifts, labour charges including implementation of as per design, drawing, technical specifications and directions of Essic rate  Maintenance- 4th year escalation of 16%	aterials, sca	67.36 48.84 537.20 affolding HOM o ntal and Social charge.	f machinerie			
	Maintenance- 4th year escalation of 16% Add 10% For area weightage  Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all may with all lead and lifts, labour charges including implementation of as per design, drawing, technical specifications and directions of E Basic rate	aterials, sca	67.36 48.84 537.20 affolding HOM ontal and Social charge.	f machinerie			
	Maintenance- 4th year escalation of 16% Add 10% For area weightage  Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all mawith all lead and lifts, labour charges including implementation of as per design, drawing, technical specifications and directions of E	aterials, sca	67.36 48.84 537.20 affolding HOM of the and Social charge.	f machinerie			
	Maintenance- 4th year escalation of 16% Add 10% For area weightage  Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all mawith all lead and lifts, labour charges including implementation of	aterials, sca	67.36 48.84 537.20 affolding HOM o	f machinerie			
	Maintenance- 4th year escalation of 16% Add 10% For area weightage  Maintenance for 4th Year: Removing and resetting of kerb stones. including cost of all ma	aterials, sca	67.36 48.84 <b>537.20</b> affolding HOM o	f machinerie			
22	Maintenance- 4th year escalation of 16%	Rate	67.36 48.84	Cum			
22	Maintenance- 4th year escalation of 16%	Rate	67.36 48.84	Cum			
22	Maintenance- 4th year escalation of 16%		67.36 48.84				
22	Maintenance- 4th year escalation of 16%		67.36				
22							
22	Racio rato	<del>                                     </del>	404				
22							
	Providin and fixing pre cast solid concrete water table(longitudina CC 1:2:4 and jointed with CM 1:3 and finishing cutting, including a machinery,loading,unloading,lead and lift,transportation etc.,comp (Page No 25,SI No : 5.3)	cost of all m					
	Maintenance for 4th Year:	-1					
		Rate	537.20	Cum			
	Add 10% For area weightage	Doto	48.84 <b>537.20</b>	0			
	Maintenance- 4th year escalation of 16%		67.36				
	Basic rate  Maintenance 4th year application of 169/	+ +	421				
21	Maintenance for 4th Year:  Providin and fixing pre cast solid concrete Kerb stones as per the drawing,made out of CC 1:2:4 and Jointed with CM 1:3 and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)						
		Nate	20342.23	Cuiii			
	Iviaintenance- 4th year escalation of 10%	Rate	2833.41 <b>20542.23</b>	Cum			
	Basic Rate Maintenance- 4th year escalation of 16%		17708.82 2833.41				
	Rate Arrived as per Rate analysis		47700 00				
20	Engineer-in-charge (length of finished kerb edging shall be measu (Precast C.C. kerb stone shall be approved by Engineer-in-charge (RA Attached)	red for payr	•	direction			
00	including making joints with or without grooves (thickness of joints than 5mm), including making drainage opening wherever requ	•	•				
	Providing and laying at or near ground level factory made kerb position to the required line, level and curvature, jointed with ceme	ent mortar 1	:3 (1 cement: 3	coarse sand			
	Maintenance for 4th Year:						
	That 10701 of aroa weightage (Mangalore City)	Rate	422.36	Rmt			
	Add 10% For area weightage (Mangalore City)		38.4				
	Maintenance- 4th year escalation of 16%		52.96				
	Basic Rate		331				
	(Page No 257,SI No : 35.8)						
	specification No 3005 1			cations.ivioi			
19 	joints in concrete pavement using epoxy mortar concrete specification No.3005.1	complete	as per specifi	cations Mor			
19		,	•	•			

0.4	Maintenance for 4th Year: KSRRB 800-1. Painting two coats after filling the surface with syr	nthetic enan	nel naint in annr	oved shades
24	on new plastered concrete surfaces, with materials, labour comp			
	Chapter 8	icte as per t	specifications. IV	
	(Page No 182,SI No : 24.1)			
	Basic Rate		80	
	Maintenance- 4th year escalation of 16%		12.8	
	Add 10% For area weightage (Mangalore City)		9.28	
		Rate	102.08	Sqm
	Maintenance for 4th Year:			
25	P/F Square shape 600mmx450 mm precast R.C.C. manhole cov	er with fram	10	
20	(Rate analysis attached)	Ci with han		
	Rate Arrived as per Rate analysis			
	Basic Rate		917	
	Maintenance- 4th year escalation of 16%		146.72	
	The state of the	Rate	1063.72	Nos.
		1 1 1 1 1 1		
	Maintenance for 4th Year:		L	
	Providing and Fixing Recessed Inception chamber cover - size: (	1250 x 125	0 v 80)mm Mate	erial: Cast Iron
26	Ductile Iron	(1200 X 120	o x oojiiiiii wax	onal. Odol non
	(NON SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer			
	Sr.No.15		3500.00	
	Maintenance- 4th year escalation of 16%		560	
	,	Rate	4060.00	Nos.
			3	n charge (pag
	No.41,Item No.7,KUWSDB SOR 2016-17)		· · · · · · · · · · · · · · · · · · ·	n cnarge (page
	Basic Rate		297	n cnarge (pago
	Basic Rate Maintenance- 4th year escalation of 16%		· · · · · · · · · · · · · · · · · · ·	n cnarge (pag
	Basic Rate Maintenance- 4th year escalation of 16% Add 12% on Labor Charges=Rs.47,For area weightage		297	n cnarge (pag
	Basic Rate Maintenance- 4th year escalation of 16%	Rate	297 47.52	Rm
	Basic Rate Maintenance- 4th year escalation of 16% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)	Rate	297 47.52 5.64	
	Basic Rate Maintenance- 4th year escalation of 16% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year:		297 47.52 5.64 <b>350.16</b>	Rm
	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100	Omm dia, of	297 47.52 5.64 <b>350.16</b> self cleaning de	Rm esign with
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm including	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good	Rm esign with
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specific	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good	Rm esign with the walls and
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm including	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good	Rm esign with
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good ification No. KB	Rm esign with the walls and
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB	Rm esign with
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB	Rm esign with the walls and
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate	Omm dia, of g cutting an ations Spec	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB	Rm esign with the walls and S 11.1.10.
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%	0mm dia, of g cutting an	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB	Rm esign with
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)	Omm dia, of g cutting an ations Spec	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB	Rm esign with the walls and S 11.1.10.
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)	Omm dia, of g cutting an ations Spec	297 47.52 5.64 350.16 self cleaning ded making good ification No. KB 830 132.8 96.28 1059.08	Rm esign with the walls and S 11.1.10.
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M800- Cable Duct Across the road KSRRB M800-29	Omm dia, of g cutting an ations Spec	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB  830 132.8 96.28 1059.08	Rm esign with the walls and S 11.1.10.  Nos.
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate Maintenance- 4th year escalation of 16% Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29 cement concrete pipe duct, 300 mm dia, across the road (new concentration)	Omm dia, of g cutting an ations Spec  Rate  9.1. Providiconstruction	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying extending from	Rm esign with the walls and S 11.1.10.  Nos. of a reinforce on drain to drain
28	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M800- Cable Duct Across the road KSRRB M800-29 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of the contraction of the contractio	Omm dia, of g cutting an ations Spec	297 47.52 5.64 350.16 self cleaning ded making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying ends, providing tends, providing	Rm esign with the walls and S 11.1.10.  Nos. of a reinforce on drain to drain to drain a minimum f
	Maintenance- 4th year escalation of 16% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate Maintenance- 4th year escalation of 16% Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year: KSRRB M800- Cable Duct Across the road KSRRB M800-28 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of granular material over top and sides of RCC pipe as per IRC:	Omm dia, of g cutting an ations Spec  Rate  9.1. Providiconstruction walls at both 98-1997, be	297 47.52 5.64 350.16 self cleaning ded d making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying ends, providing ends, providing edded on a 0.3	Rm esign with the walls and S 11.1.10.  Nos.  of a reinforce m drain to drain to drain to drain m thick layer of m thick layer of the second s
28	Maintenance- 4th year escalation of 16% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate Maintenance- 4th year escalation of 16% Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year: KSRRB M800- Cable Duct Across the road KSRRB M800-29 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of granular material over top and sides of RCC pipe as per IRC: granular material free of rock pieces, outer to outer distance of	Omm dia, of g cutting an ations Spec  Rate  9.1. Providiconstruction walls at both 198-1997, be of pipe at le	297 47.52 5.64 350.16 self cleaning ded making good ification No. KB  830 132.8 96.28 1059.08 ng and laying ends, providing ends, providing edded on a 0.3 east half dia of	Rm esign with the walls and S 11.1.10.  Nos.  of a reinforce m drain to drain to drain to drain the drain
	Maintenance- 4th year escalation of 16% Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year: KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate Maintenance- 4th year escalation of 16% Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year: KSRRB M800- Cable Duct Across the road KSRRB M800-28 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of granular material over top and sides of RCC pipe as per IRC: granular material free of rock pieces, outer to outer distance of minimum450 mm in case of double and triple row ducts, joints to	Rate  9.1. Providiconstruction walls at both 198-1997, be of pipe at le	297 47.52 5.64 350.16 self cleaning ded d making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying ended on a 0.3 east half dia of eak proof, inverted.	Rm esign with the walls and S 11.1.10.  Nos.  of a reinforce m drain to draig a minimum f m thick layer of pipe subject to level of duct to the silver of
	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M800- Cable Duct Across the road KSRRB M800-29 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of granular material over top and sides of RCC pipe as per IRC: granular material free of rock pieces, outer to outer distance of minimum450 mm in case of double and triple row ducts, joints to be above higher than ground level to prevent entry of water	Rate  9.1. Providing construction walls at both 198-1997, be possible and dirt, a	297 47.52 5.64 350.16 self cleaning ded d making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying ends, providing ends, providing ends and laying ends as that dia of eak proof, invertall as per IRC:	Rm esign with the walls and S 11.1.10.  Nos.  of a reinforce m drain to dra
	Maintenance for 4th Year: KSRB 11-18-17.1 : Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate Maintenance for 4th Year: KSRB M800- Cable Duct Across the road KSRRB M800-29 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of granular material over top and sides of RCC pipe as per IRC: granular material free of rock pieces, outer to outer distance of minimum450 mm in case of double and triple row ducts, joints to be above higher than ground level to prevent entry of water approved drawings complete as per specifications. Case - I : Sing	Rate  9.1. Providing construction walls at both 198-1997, be possible and dirt, a	297 47.52 5.64 350.16 self cleaning ded d making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying ends, providing ends, providing ends and laying ends as that dia of eak proof, invertall as per IRC:	Rm esign with the walls and S 11.1.10.  Nos.  of a reinforce m drain to drain to drain to drain thick layer of pipe subject to level of duct to 198 - 1997 and 1997 a
	Basic Rate  Maintenance- 4th year escalation of 16%  Add 12% on Labor Charges=Rs.47,For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRB 11-18-17.1: Providing and fixing sand cast iron trap of 100 screwed down or hinged grating with or without vent arm includin floors, cost of materials, labour, testing, complete as per specifical (PWD SR 2015-16,P.No.86, SI.No.12.89)  Basic Rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M800- Cable Duct Across the road KSRRB M800-29 cement concrete pipe duct, 300 mm dia, across the road (new of in cuts and toe of slope to toe of slope in fills, constructing head of granular material over top and sides of RCC pipe as per IRC: granular material free of rock pieces, outer to outer distance of minimum450 mm in case of double and triple row ducts, joints to be above higher than ground level to prevent entry of water	Rate  9.1. Providing construction walls at both 198-1997, be possible and dirt, a	297 47.52 5.64 350.16 self cleaning ded d making good iffication No. KB  830 132.8 96.28 1059.08 ng and laying ends, providing ends, providing ends and laying ends as that dia of eak proof, invertall as per IRC:	Rm esign with the walls and S 11.1.10.  Nos.  of a reinforce of drain to dr

			FAAAI		
l	Basic Rate	1	5022		
	Maintenance- 4th year escalation of 16%	+	803.52	-	
	Add 10% For area weightage (Mangalore City)	<b>_</b>	582.55		
		Rate	6408.07	Rm	
	Maintenance for Ath Voor				
30	Maintenance for 4th Year:  Providing and laying Dia 225mm HDPE Power Duct with Silicore Lubricant inner layer with ribs, dimensional ratio of 13.5, Deflection not greater than 5% when exposed to the normal operating temparature 90°C under the over burden soil presuure and other physical properties comforming to ASTMF 2160 and /or NEMA TC7. The expected service life of HDPE pipe conduits and accessories shall not be less than 50 years.  (Market Rate)				
	Basic Rate		2300		
	Deduct GST @18%		-414		
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item No.50,Pg.No.123)		78		
	Add 12% For area weightage (Mangalore City)		9.36		
	Sub Total	1	1973.36		
	Maintenance- 4th year escalation of 16%		315.74		
	•	Rate	2289.10	Rm	
31	dimensional ratio of 13.5, Deflection not greater than 5% what temparature 90°C under the over burden soil presuure and c ASTMF 2160 and /or NEMA TC7. The expected service life of HI not be less than 50 years. (Market Rate)	ther physi	cal properties c	comforming to	
	Basic Rate		1215		
	Deduct GST @18%		-218.7		
	Labour Cost for laying and Jointing-KUWSDB,HDPE Pipes,Item		-210.7		
	No.50,Pg.No.123)		66		
	140.00,1 9.140.120)				
	Add 12% For area weightage (Mangalore City)		7 92		
	Add 12% For area weightage (Mangalore City) Sub Total		7.92 1070.22		
	Sub Total		1070.22		
		Rate		Rm	
	Sub Total  Maintenance- 4th year escalation of 16%	Rate	1070.22 171.24	Rm	
32	Sub Total		1070.22 171.24 <b>1241.46</b>		
32	Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate)  Basic Rate  O&M 4th year escalation of 16%	to be place	1070.22 171.24 1241.46 eed at an interval	l of 1.5 mete	
32	Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate O&M 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, Spacers shall be made of ABS raw material. (Market rate)	to be place	1070.22 171.24 1241.46 ced at an interval 1003 160.48 1163.48	l of 1.5 meter	
32	Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate O&M 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate	to be place	1070.22 171.24 1241.46 eed at an interval 1003 160.48 1163.48	l of 1.5 meter	
32	Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate O&M 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, Spacers shall be made of ABS raw material. (Market rate)	to be place  Rate  to be place	1070.22 171.24 1241.46 eed at an interval 1003 160.48 1163.48 eed at an interval	Nos.	
32	Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate O&M 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate	to be place	1070.22 171.24 1241.46 eed at an interval 1003 160.48 1163.48	l of 1.5 meter	
33	Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 225 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate O&M 4th year escalation of 16%  Maintenance for 4th Year: Providing and Fixixng Spacers for Power Ducts of size 160 mm, Spacers shall be made of ABS raw material. (Market rate) Basic Rate	to be place  Rate  to be place  to be place  Rate  bricant inred and core	1070.22 171.24 1241.46 red at an interval 1003 160.48 1163.48 2258.52 2258.52 her layer for ICT 1003 10	Nos.  Nos.  I of 1.5 mete  Nos.	

	Labour Cost for laying and Jointing-KUWSDB, HDPE Pipes, Item						
	No.50,Pg.No.123)		36				
	Add 12% For area weightage (Mangalore City)		4.32				
	Sub Total		725.32				
	Maintenance- 4th year escalation of 16%		116.05				
		Rate	841.37	Rm			
35	Maintenance for 4th Year: Providing and laying heavy duty cobble stones 60mm thick, using a manufacture of blocks of approved size, shape and colour with a new per sqm over 30mm thick sand bed (average thickness) and compaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of materials, I complete as per specifications.	ninimum o pacting wi up in bet	compressive strer th plate vibrator h ween joints, final	ngth of 281 kg naving 3 tons compaction c			
	(Page No 101,SI No : 14.6)						
	Basic rate		1056.00				
	Maintenance- 4th year escalation of 16%		168.96				
	Add 10% For area weightage (Mangalore City)		122.5				
		Rate	1347.46	Sqm			
	Maintenance for 4th Year:						
36	minimum compressive strength of 281 kg per sqm over 30mm thic compacting with plate vibrator having 3 tons compaction force their come up in between joints, final compaction of paver surface joints	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 30mm 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. (Non SOR Item)					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		912.00				
	Sr.No.12						
		Rate	912.00 145.92 <b>1057.92</b>	Sqm			
	Sr.No.12	Rate	145.92	Sqm			
37	Maintenance 4th year escalation of 16%  Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mater complete as per specifications.  (Page No 101,SI No : 14.7)	, using of minimum of hpacting very serior to the contraction of the c	145.92 1057.92 cement and coucompressive stre with plate vibrator ween joints, final our and HOM o	irse sand fo ngth of 281 kg having 3 tons compaction o			
37	Maintenance 4th year escalation of 16%  Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mater complete as per specifications.  (Page No 101,SI No : 14.7)  Basic rate	, using of minimum of hpacting very serior to the contraction of the c	145.92 1057.92 cement and coucompressive strewith plate vibrator ween joints, final our and HOM o	irse sand fo ngth of 281 k having 3 ton compaction o			
37	Maintenance 4th year escalation of 16%  Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mate complete as per specifications.  (Page No 101,SI No : 14.7)  Basic rate  Maintenance- 4th year escalation of 16%	, using of minimum of hpacting very sup in bet	145.92 1057.92 cement and courompressive strewith plate vibrator ween joints, final our and HOM of 1114 178.24	irse sand fo ngth of 281 k having 3 ton compaction o			
37	Maintenance 4th year escalation of 16%  Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mater complete as per specifications.  (Page No 101,SI No : 14.7)  Basic rate	, using of minimum of hpacting very sup in bet	145.92 1057.92 cement and coucompressive strewith plate vibrator ween joints, final our and HOM o	irse sand fo ngth of 281 k having 3 ton compaction o			
37	Maintenance 4th year escalation of 16%  Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mate complete as per specifications.  (Page No 101,SI No : 14.7)  Basic rate  Maintenance- 4th year escalation of 16%	, using on the second of the s	145.92 1057.92  cement and coucompressive stre vith plate vibrator ween joints, final our and HOM of 1114 178.24 129.22	irse sand for ngth of 281 k having 3 ton compaction of machinerie			
37	Maintenance 4th year escalation of 16%  Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mate complete as per specifications.  (Page No 101,SI No : 14.7)  Basic rate  Maintenance- 4th year escalation of 16%	Rate  macadar and, transpoth wheeled complete displaying to the capacity	145.92 1057.92  cement and councempressive streewith plate vibrator ween joints, final our and HOM of 1114 178.24 129.22 1421.46  musing crushed porting the hot mided, vibratory and in all respects con H.M.P. with sense	Nos.  aggregates of x to work site tandem roller			
	Maintenance for 4th Year:  Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mate complete as per specifications.  (Page No 101,Sl No: 14.7)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M500-17. Providing and laying dense graded bituminous specified grading, premixed with VG30 grade bituminous binder a laying to the required grade, level and alignment, rolling with smoot to achieve the desired compaction as per MORTH table 500-10 c specifications MORTH Specification No. 507 -using 100/120 TPF (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.)	Rate  macadar and, transpoth wheeled complete displaying to the capacity	145.92 1057.92  cement and coucompressive strevith plate vibrator ween joints, final our and HOM of 1114 178.24 129.22 1421.46  m using crushed porting the hot mided, vibratory and in all respects condition and respects conditions.	Nos.  Aggregates of x to work site tandem rollers			
	Maintenance for 4th Year: Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mate complete as per specifications.  (Page No 101,SI No: 14.7)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M500-17. Providing and laying dense graded bituminous specified grading, premixed with VG30 grade bituminous binder a laying to the required grade, level and alignment, rolling with smoot to achieve the desired compaction as per MORTH table 500-10 c specifications MORTH Specification No. 507 -using 100/120 TPH (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No. Basic rate	Rate  macadar and, transpoth wheeled complete displaying to the capacity	145.92 1057.92  cement and councempressive streewith plate vibrator ween joints, final our and HOM of the final councempressive streewith plate vibrator and HOM of the final councempressive streewith plate vibratory and the final councempression respects councer H.M.P. with sense page No.163)	Nos.  Aggregates of x to work site tandem rollers			
	Maintenance for 4th Year:  Providing and laying heavy duty cobble stones 75mm thick manufacture of blocks of approved size, shape and colour with a reper sqm over 30mm thick sand bed (average thickness) and concompaction force thereby forcing part of sand underneath to come paver surface joints into its final level, including cost of mate complete as per specifications.  (Page No 101,Sl No: 14.7)  Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area weightage (Mangalore City)  Maintenance for 4th Year:  KSRRB M500-17. Providing and laying dense graded bituminous specified grading, premixed with VG30 grade bituminous binder a laying to the required grade, level and alignment, rolling with smoot to achieve the desired compaction as per MORTH table 500-10 c specifications MORTH Specification No. 507 -using 100/120 TPF (50 mm to 75 mm) with 4.5 % VG-30 Bitumen(KPWD 16-17,S.I.No.)	Rate  macadar and, transpoth wheeled complete displaying to the capacity	145.92 1057.92  cement and coucompressive strevith plate vibrator ween joints, final our and HOM of 1114 178.24 129.22 1421.46  m using crushed porting the hot mided, vibratory and in all respects condition and respects conditions.	Nos.  Aggregates of x to work site tandem rollers			

	Maintenance for 4th Year:						
	KSRRB M500-19. Providing and laying bituminous concrete 40 m	nm thick w	ith hot mix plant	t, using crushed			
	aggregates of specified grading, premixed with bituminous binder		•	•			
39	site, laying with a paver finisher to the required grade, level and	d alignmer	nt, rolling with s	mooth wheeled			
39	vibratory and tandem rollers to achieve the desired compaction						
	500.9 complete in all respects complete as per specifications. Me						
	TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 m						
		,					
	Basic rate		8761				
	Maintenance- 4th year escalation of 16%		1401.76				
	Add 10% For area weightage (Mangalore City)		1016.28				
		Rate	11179.04	Cum			
	Maintenance for 4th Year:						
	KSRRB M800 Road markers / Road stud KSRRB M800-35. Provi	iding and f	ixing of road stu	d 100x 100			
	mm, diecast in aluminium, resistant to corrosive effect of salt and	•	•				
40	in concrete or asphaltic surface by drilling hole 30 mm upto a dep	•		•			
	bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 of						
	Total initials grout of epoxy mortal, all as per bo. 676 part 4.1576 t	complete c	as per specificat	10113			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		200.00				
	Sr.No.12		289.00				
	Maintenance- 4th year escalation of 16%		46.24				
		Rate	335.24	Sqm			
	Maintenance for 4th Year:						
		Dofloatrio	ing Class Book	da an Canarata			
	Road Marking with hot applied Thermoplastic Compound with		•				
	Surface: Providing and laying of hot applied thermoplastic compositions to a second state of the second state of the second seco						
41	glass beads at 250 gms and 2 ltr of primer per sqm area,thic						
	applied glass beads as per IRC:35.The finished surface to be lev	el,uniform	and free from s	treak and holes			
	complete as per specifications.MORTH specification No.803						
	(Page No 192,SI No : 24.57)						
	Davis Date		400				
	Basic Rate		429				
	Maintenance- 4th year escalation of 16%		68.64				
	Add 10% For area weightage (Mangalore City)	Rate	49.76 <b>547.40</b>	Cam			
		Rate	347.40	Sqm			
	Maintenance for 4th Year:						
42	Operation and Maintenance for eToilets Stainless Steel Public Model as specified in Road and Other works						
	BOQ Item No.45.	•					
	Baisc rate		61200				
	Maintenance- 4th year escalation of 16%		9792				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer						
	Sr.No.1	Rate	70992	Nos.			
	Maintenance for 4th Year:						
40	Providing and fixing of S.S. Bollards(SS304) on footpath as specif	fied and d	lirected by Engir	neer -in-charge			
43	(NON SOR Item)						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		4500.00				
	Sr.No.13		4500.00				
	O&M 4th year escalation of 16%		720				
		Rate	5220	Nos.			
	Maintanana fan Ath Varre						
	Maintenance for 4th Year:  Draviding and fiving of railing as detail design in MS HOLLOW SE	CTION	nd hara / al- al	rowing to be			
44	Providing and fixing of railing as detail design in MS HOLLOW SE		•	•			
• •	approved), with vertical support of 0.9m @2.2mc/c, all complete to the satisfaction of the Landscape						
	architect.(Non SOR Item)						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.26		100000.00				
	JI.NU.20						

	Maintenance- 4th year escalation of 16%		16000	
		Rate	116000	MT
	Maintenance for 4th Year:			
	Excavation and removal of silt and silt mixed with sand in slussy co			
	disposing off the same in spoil bank or on the canal embankment i	n layers a	s directed etc., co	mplete wit
45	lead upto 50 m and all lifts. For Desilting of drains and grit chambe	rs includir	ng cost of all mat	erials.
40	scaffolding HOM of machineries with all lead and lifts, labour charge			
	Environmental and Social Safeguards & as per design, drawing, te		• .	
		cillical sp	ecilications and t	
	Engineer-in-charge.			
	Basic Rate		179.00	
	Maintenance- 4th year escalation of 16%		28.64	
		Rate	207.64	Nos.
		1	l l	
	Maintenance for 4th Year:			
46	Extra Lead for Disposing off unserviceable materials upto 10 Km b	eyond initi	al Lead	
	Item No 17.4 KSRRB M100-4.1-Earth			
	Pouth	0.0.4	.28x10km	
	Earth Deign rate	2.UX I		
	Baisc rate		25.60	
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-		57.00	
	1)			
	Sub Total-1		82.60	
	Add 10% For area weightage (Mangalore City)		8.26	
	Sub Total-2		90.86	
	Maintenance- 4th year escalation of 16%		14.54	
		Rate	105.40	Cum
	Maintenance for 4th Year:			
47	Extra Lead for Disposing off unserviceable materials upto 10 Km b	eyond initi	al Lead	
	Item No 17.4 KSRRB M100-4.1-Debris			
	Debris	2.0x1	.30x10Km	
	Baisc rate		26.00	
	Add Loading and unloading charges(Item No 17.1 KSRRB M100-			
	1)		57.00	
	Sub Total-1		83.00	
	Add 10% For area weightage (Mangalore City)		8.3	
	Sub Total-2		91.30	
	Maintenance- 4th year escalation of 16%		14.61	
	INdifferiance- 401 year escalation of 1076	Data		Cum
		Rate	105.91	Cum
	Lighting Poles			
	Maintenance for 4th Year:			
48	Dismantling of pole/ street light standard/ strut embedded in cemer	nt concrete	e	
70	foundation etc. as required			
	(Delhi analysis of rates E & M 2016, item 12.42, pg 395))			
	Basic Rate		1,295	
	Maintenance- 4th year escalation of 16%		207.2	
	,	Rate	1502.2	Nos.
	Maintenance for 4th Year:	]		
	Lighting Pole, 9 m			
		-10-1-	I I idl- DOF	40005
	Fabrication, supply and erection of 9 meters long hot dip Galvanise			
	S 355 JO steel plate for shaft, IS 2062 for base plate with oor open			
	boards, bakelite sheet and MCBs as per IS specifications suitable			
49	in single section and single joint welded as per IS 9595/IS 10178 A			
T-3	dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of	long J b	olts along with te	mplate and
	the pole shall be hot dip galvanized in single dipping with not less t			
	153 etc., (excluding foundation) as per drawing appended		,	
	(Ref Electrical SOR SI No. 5.14.7)			
	(1.10) 2.30(1104) 3011 011101 0.11111 )			

Basic rate					
		17118			
Maintenance- 4th year escalation of 16%		2738.88			
	Rate	19,856.88	Nos.		
Maintenance for 4th Year: Lighting Pole, 7 m Fabrication, suppl and erection of 7 meters long hot dip Galvanis S 355 JO steel plate for shaft, IS 2062 for base plate with oor op boards, bakelite sheet and MCBs as per IS specifications suitab in single section and single joint welded as per IS 9595/IS 10178 dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of the pole shall be hot dip galvanized in single dipping with not less 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.5)	pening arrandle le for wind s B AWG havion of long J	gement, icluding peed of 47 m/seng dimensions be bolts along with	g suitable ec for 5 m pole pottom 155 mm template and		
Basic rate		12420			
Maintenance- 4th year escalation of 16%		1987.2			
Maintenance- 4th year escalation of 16%	Poto		Noo		
Maintenance for 4th Year:	Rate	14,407.20	Nos.		
boards, bakelite sheet and MCBs as per IS specifications suitab in single section and single joint welded as per IS 9595/IS 10178 dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of					
Basic rate		7398			
Maintenance- 4th year escalation of 16%		1183.68			
	Rate	8,581.68	Nos.		
Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable f	or outdoor l	uminaries and m	nounted on		
52 Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate		3540 566.4			
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Rate	566.4	Nos		
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable f Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	Rate or outdoor lu	566.4 <b>4,106.40</b> uminaries and m	Nos.		
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)  Basic rate		566.4 <b>4,106.40</b> uminaries and m			
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable f Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)	or outdoor l	566.4 <b>4,106.40</b> uminaries and m 2400 384	nounted on		
Octagonal pole using necessary bolts, nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for Octagonal pole using necessary bolts, nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)  Basic rate  O&M 4th year escalation of 16%  Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint including coping/footing of the pole8mtr and above street light pole after Electrical SOR SI No.16.28.3)	Rate	2400 384 2,784	Nos.		
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable froctagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)  Basic rate  O&M 4th year escalation of 16%  Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint including coping/footing of the pole8mtr and above street light pole assic rate  (Ref Electrical SOR SI No.16.28.3)  Basic rate	Rate	2400 384 2,784 I with suitable co	Nos.		
Octagonal pole using necessary bolts, nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for Octagonal pole using necessary bolts, nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)  Basic rate  O&M 4th year escalation of 16%  Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint including coping/footing of the pole8mtr and above street light pole after Electrical SOR SI No.16.28.3)	Rate and painted	2400 384 2,784 I with suitable co	Nos.		
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for Octagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)  Basic rate  O&M 4th year escalation of 16%  Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)  Basic rate  Maintenance- 4th year escalation of 16%	Rate	2400 384 2,784 I with suitable co	Nos.		
Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)  Basic rate  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Supplying and fixing of hot dip Galvinized M.S.bracket Suitable froctagonal pole using necessary bolts,nuts, etc. complete Single Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.2)  Basic rate  O&M 4th year escalation of 16%  Maintenance for 4th Year: Painting of Existing street light pole after scrapping the old paint including coping/footing of the pole8mtr and above street light pole assic rate  (Ref Electrical SOR SI No.16.28.3)  Basic rate	Rate and painted pole Rate	2400 384 2,784 I with suitable co	Nos. Nos. Nos.		

	Maintenance- 3rd year escalation of 12%		1413.95			
		Rate	13,197	Nos.		
	Maintenance for 4th Year:					
	Supply and fixing of miniature circuit breaker on exisiting board	l using necessa	sarv fixing m	aterial and 'C'		
	type curve, indicator ON/OFF, energy cross-3 with short circuit					
56	as required confirming to IEC 60898	breaking capac	oity of To IVA	complete willing		
	5- 32A TPN					
	Electrical SOR- 6.16.5)					
	Basic rate		1547			
	Maintenance- 3rd year escalation of 12%		185.64			
	·	Rate	1,733	Nos.		
			,			
	LT Cable					
	Maintenance for 4th Year:					
		Singulated auto	ام محمد المحمد	a a sth a d		
	Supplying of 1.1 kV LT cable having aluminium conductor PVC					
	galvanised, steel strips (except 2C x 10 sq. mm wire armoured	l) as per IS-397	5:1990 and e	xtruded PVC		
57	outer sheathed armoured cable as per IS - 1554 Part 1:1988 &	conforming to	GTP of GRO	UP B		
	4 Core x16 Sq.mm PVC Aluminium Conductor,					
	(Ref Electrical SOR SI No.7.5,7.5.4)					
	Basic rate		117			
	Maintenance- 4th year escalation of 16%		18.72			
	Ivialite natice- 4th year escalation of 1076	Poto	135.72	Rm		
		Rate	135.72	KIII		
	Maintenance for 4th Year:					
	Supply and drawing flexible multicore cable with electrolyte gra					
58	conforming to Table 3 Class 5 of IS:8130-1984 and vargin PV0	C insulation and	sheathed su	itable for		
	working voltage up to 1100 V as per IS-694:1990 and conform	ing to GTP of G	Group A.			
	3C x 2.5 sq. mm (Ref. Electrical SOR 2.8.8)	J	•			
	·		01.6			
	Basic rate		81.6			
	Maintenance- 4th year escalation of 16%	D. C.	13.06			
		Rate	94.66	Rm		
	Maintenance for 4th Year:					
50	Supplying tinned copper lugs and crimping and wiring to termin	nal point for wire	of following	sizes		
59	16 Sq.mm PVC Aluminium Conductor					
	(Ref Electrical SOR SI No.7.21,7.21.6)					
	Basic rate		11.31			
	Maintenance- 4th year escalation of 16%		1.81			
		Rate	13.12	Nos.		
	Maintenance for 4th Year:					
	Supplying tinned copper lugs and crimping and wiring to termin	nal point for wire	of following	sizes		
60	2.5 sq. mm copper conductor					
	(Ref Electrical SOR SI No.7.21.2)					
	(10. 2.000					
	Basic rate		3.12			
	Maintenance- 4th year escalation of 16%		0.5			
	INIGING INCOME THE YEAR ESCARATION OF 10/0	Dete				
		Rate	3.62	Nos.		
				<u> </u>		
	Maintenance for 4th Year:					
	Chemical Earthing for grounding, conduits, IC cut outs and othe	requipmentson	the mter boa	rdby using		
	copper /SS rod with earth enhancing backfill compound which	is non corrosive	е	-		
	the area of the construction of a state of the property of the construction of the con					
C4	,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather					
61		,	• • •	,		
61	resistance and capable of achieving ohmic value	,	•	·		
61	resistance and capable of achieving ohmic value less than one ohm	,	• • •	,		
61	resistance and capable of achieving ohmic value	,	, ,	,		
61	resistance and capable of achieving ohmic value less than one ohm (Ref Electrical SOR Pg.No.64,SI No.7.23.6)			,		
61	resistance and capable of achieving ohmic value less than one ohm		5500 880			

		Rate	6380	Kit	
	Maintenance for 4th Voor				
62	Maintenance for 4th Year: 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)				
	Basic rate		19.5		
	Maintenance- 4th year escalation of 16%		3.12		
		Rate	22.62	Rmt	
63	Maintenance for 4th Year: Supplying and stacking of good earth at site including royalty and of measured in stacks will be reduced by 20% for payment). (Non SOR Item)	L carriage u	pto 5 k.m. lead	complete (earth	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27		140.00		
	Maintenance- 4th year escalation of 16%		22.4		
	Thailterialise Turyear essalation of 1075	Rate	162.40	Cum	
		rtato	102110	Guiii	
64	KSRRB M300-Supply at site of work well decayed farm yard mar work well decayed farm yard manure, from any available sourc including screening and stackin complete as per specifications. No.152,SI.No.19.90)	e, appro	ved by the eng	ineer in charge	
	Basic rate		204		
	Maintenance- 4th year escalation of 16%		32.64		
	Add 10% For area weightage		23.66		
		Rate	260.30	Cum	
65	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge KSRRB M300-1. Spreading of sludge farm yard manure or/ and g sludge, farm yard manure or/and good earth to be paid for sep MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	good eart	h in required th	ickness (cost of	
		1			
	Basic rate		103		
	Basic rate Maintenance- 4th year escalation of 16%		16.48		
	Basic rate	<b>D</b>	16.48 11.95		
	Basic rate Maintenance- 4th year escalation of 16%	Rate	16.48	Cum	
66	Basic rate Maintenance- 4th year escalation of 16%		16.48 11.95 <b>131.43</b>		
66	Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area wightage  Maintenance for 4th Year:  Mixing earth and sludge or manure in the required proportion speci (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer		16.48 11.95 <b>131.43</b>		
66	Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area wightage  Maintenance for 4th Year:  Mixing earth and sludge or manure in the required proportion speci (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28		16.48 11.95 131.43 rected by the Of		
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66	Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area wightage  Maintenance for 4th Year:  Mixing earth and sludge or manure in the required proportion speci (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	Rate	16.48 11.95 131.43 rected by the Of 23.91 3.83 27.74 one year include with all lead	Cum ing watering etc	
	Basic rate  Maintenance- 4th year escalation of 16%  Add 10% For area wightage  Maintenance for 4th Year: Mixing earth and sludge or manure in the required proportion speci (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Maintenance of lawns or Turfing of slopes (rough grassing) for a proposition of the complete including cost of all materials, scaffolding HOM of materials including implementation of Environmental and Social	Rate	16.48 11.95 131.43 rected by the Of 23.91 3.83 27.74 one year include with all lead	Cum ing watering etc	
	Maintenance- 4th year escalation of 16% Add 10% For area wightage  Maintenance for 4th Year: Mixing earth and sludge or manure in the required proportion speci (Non SOR item)  Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28  Maintenance- 4th year escalation of 16%  Maintenance for 4th Year: Maintenance of lawns or Turfing of slopes (rough grassing) for a proposition of the complete including cost of all materials, scaffolding HOM of materials including implementation of Environmental and Social technical specifications and directions of Engineer-in-charge.	Rate	16.48 11.95 131.43 rected by the Of 23.91 3.83 27.74 one year include with all lead rds & as per of	fficer-in-charge  Cum  ing watering etc and lifts, labour	
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	Maintenance for 4th Year:				
68	ZOYSIA JAPONICA ( MAT)				
	(Non SOR Item)				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		156.80		
	Sr.No.32		130.00		
	Maintenance- 4th year escalation of 16%		25.09		
		Rate	181.89	Sqm	
	IRRIGATION				
69	Maintenance for 4th Year:				
69	Watering with tanker to landscape area and plants for one year				
	Water Tanker =52 Rs/ Hour, One Year Cost=92 days x 3 hrs x				
	61rs/hr ( 365days-90 days of mansoon=275 days/3 days=92		16836		
	days,consider watering at every 3 days)				
	Mazdoor = 0.5 days x 446.20		20525.2		
	Add 10% For area wightage		2052.52		
	Maintenance- 4th year escalation of 16%		5977.79		
		Rate	45391.51	Year	
	Maintenance for 4th Year:				
	supply and fixing of irrigation lines such that all the green areas				
	means of drip irrigation for trees , sub surface for shrubs and lawn areas / ground covers and pop up				
70	sprinklers for lawn areas. (Equipment make - Rainbird or equivalent)				
	All material used should be comply to BSI code. All the necessary value and pump required for complete				
	commissioning to be installed.				
	(Non SOR Item)				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer		560.00		
	Sr.No.34				
	Maintenance- 4th year escalation of 16%		89.6		
		Rate	649.60	Sqm	

Assistant Engineer MSCL Mangaluru

Executive Engineer MSCL Mangaluru

General Manager Technical MSCL Mangaluru