

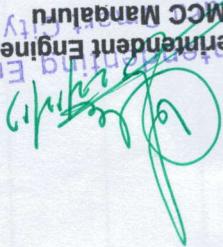
Sr. No.	Item Description	Nos	Unit Cost	Cost estimate
1	Type A - Bus Shelter with E-Toilet, but including Interactive Display and Real time Indicator.	8	Rs. 20,75,000.00	Rs. 1,66,00,000.00
2	Type B - Bus Shelter without E-Toilet, but including Interactive Display and Real time Indicator.	9	Rs. 15,00,000.00	Rs. 1,35,00,000.00
3	Type C - Bus Shelter without E-Toilet, but including Interactive Display and Real time indicator with reduced dimensions of 6mx2.2m	5	Rs. 12,00,000.00	Rs. 60,00,000.00
4	Civil Cost including Foundation and Pavings (Type A)	8	Rs. 1,78,408.00	Rs. 14,27,264.00
5	Civil Cost including Foundation and Pavings (Type B)	9	Rs. 1,43,823.00	Rs. 12,94,407.00
6	Civil Cost including Foundation and Pavings (Type C)	5	Rs. 99,989.00	Rs. 4,99,945.00
	Estimated Cost	Rs. 3,93,21,616.00	39321,616.00	Contingencies 3%
	Miscellaneous Cost towards connection of electricity, water supply and sanitation etc	Rs. 31,45,729.00	31,45,729.00	Tax if applicable @ 8%
	Administrative Expenditure Inc. Tender Premium @ 10%	Rs. 39,32,162.00	39,32,162.00	Administrative Expenditure Inc. Tender Premium @ 10%
	Contingencies 3%	Rs. 11,79,648.00	11,79,648.00	Contingencies 3%
	Miscellaneous Cost towards connection of electricity, water supply and sanitation etc	Rs. 4,20,845.00	4,20,845.00	Miscellaneous Cost towards connection of electricity, water supply and sanitation etc
	Total Estimated Cost of Installation	Rs. 4,80,00,000.00	4,80,00,000.00	Total Estimated Cost of Installation

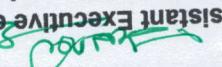
## 3. Project Estimate - Phase 1

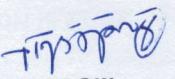
R.No.	Description	Unit No.	L	B	H	Qty.	Rate	Amount					
KSRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tipper, trimming bottom and side slopes, in accordance with requirements of lines and grades and cross sections, and transporting disposal location up to a lead of 5.00km and complete as per specifications.	KSRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tipper, 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 (including transportation charges, loading and unloading for lead 5km) (Page No 143, SI No : 19.14)	Bus Shelter base	Cum	4	1.5	1.5	0.80	7.2	Total	24.075	69.44	1672
KSRB 4-16 Providing and laying in position plain cement concrete of Mix 1:2:4 with cement @240Kgs, with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregate @0.530 cum machine mixed, concrete laid in layers not exceeding 15cms, thick, well compacted in foundation, plinth and cells, including cost of all materials, labour, HOM of machinery, curing complete as per specification No. KBSA 1, A.2 (Page No 12, SI No : 4.6)	KSRB 4-16 Providing and laying in position plain cement concrete of Mix 1:2:4 with cement @240Kgs, with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregate @0.530 cum machine mixed, concrete laid in layers not exceeding 15cms, thick, well compacted in foundation, plinth and cells, including cost of all materials, labour, HOM of machinery, curing complete as per specification No. KBSA 1, A.2 (Page No 12, SI No : 4.6)	For Bus Pedestal	Cum	1	13.5	2.5	0.15	5.0625	Total	5.9265	6093.92	36116	
b a For Bus Pedestal	b b RCC foundation	KSRB 2.8: Providing and filling in Foundation with Granite / Trap broken metal 100mm and down size, with approved sand including hand packing, ramming, water mixing including cost of all materials and labour with all leads and fittings complete as per specifications.	Cum	8	1.5	0.15	0.65	1.17	Total	2.106	2367.68	4986	
		(Page No 6, SI No : 2.15)											



KSRB 14.6-1: Providing and laying heavy duty cobble stones 60mm thick interlocking pavers, using cement and coarse sand for manufacutre of blocks of approved size, shapes and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forming 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 specification (Page No 101, SI No : 14.6)																
<table border="1"> <thead> <tr> <th></th> <th>sqm</th> <th>1</th> <th>13.5</th> <th>2.5</th> <th>33.75</th> <th>1021.44</th> <th>34474</th> </tr> </thead> <tbody> <tr> <td>Bus Stop at Ch.170.00 to 200.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>178408</td> </tr> </tbody> </table>		sqm	1	13.5	2.5	33.75	1021.44	34474	Bus Stop at Ch.170.00 to 200.00							178408
	sqm	1	13.5	2.5	33.75	1021.44	34474									
Bus Stop at Ch.170.00 to 200.00							178408									


  
 Mangalore  
 MCC Mangaluru  
 Superintendant Engineer  
 Assistant Executive Engineer

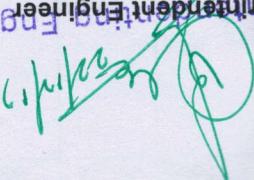

  
 Assistant Executive Engineer  
 MCL Mangaluru

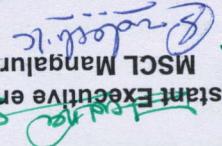


No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
KSRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading accoradance with requirements of lines and in tipper, trimming bottom and side slopes,in grades and cross sections, and transporting disposal location up to a lead of 5.00km and complete as per specifications.	(Page No 143,SI No : 19.14)	Cum	4	1.5	1.5	0.80	7.2		
a	Pestal Column for Bus Shelter	Cum	1	10.7	2.2	0.50	11.77		
b	Bus Shelter	Cum						1317	69.44
KSRB 4-1-6 Providing and laying in position plain cement concrete of Mix 1:2.4 with cement @240Kgs,with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregate @0.530 cum machine mixed,concrete laid in layers not exceeding 15cms.thick,well compacted in foundation,plinth and walls,including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1,4.2 (Page No 12,SI No : 4.6)		Cum	1	10.7	2.2	0.15	3.531		
a	For Bus Pedestal	Cum	1	10.7	2.2	0.15	0.864		26783
KSRB 2.8:Providing and Filling in Foundation with Granite /Trap broken metal 100mm and down size,with appproved sand including hand packing,ramming,watering including cost of all packing size,with all labour with all leads and materials and labour with all leads and lifting complete as per specifications.	(Page No 6,SI No : 2.15)	Cum	8	1.2	0.15	0.65	0.936		
b	Bus RCC foundation (Roadside Bus Shelters)	Cum	8	1.5	0.15	0.65	1.17		4986

	KSRB 4.2.1 : Providing and laying in position reinforced cement concrete of design Mix M25 with OPC cement @240kg's,with 20mm aggregate @ 0.47 cum with super plasticisers and down size graded granite metal coarse @3 litres confirming to IS 9103-1999										KSRB 4.2.1 : Providing and laying in position reinforced cement concrete of design Mix M25 with OPC cement @240kg's,with 20mm aggregate @ 0.47 cum with super plasticisers and down size graded granite metal coarse @3 litres confirming to IS 9103-1999											
	KSRB 4.6.1 Providing and removing Centreing,shuttering,structuring,propping etc, and removal of formwork for foundations,footings,bases of columns for										KSRB 4.6.2 Providing T.M.T steel reinforcement,shuttering,structuring,propping etc, and removal of formwork for											
a	Bus Stop RCC Foundation Base	Cum	4	1.2	1.2	0.2	1.152	Total	8.66	6967.52	60339	Bus Stop RCC Foundation Column	Cum	4	1	1	0.7	2.8	Total	8.66	6967.52	60339
5	KSRB 4.6.1 Providing and removing Centreing,shuttering,structuring,propping etc, and removal of formwork for foundations,footings,bases of columns for											KSRB 4.6.2 Providing T.M.T steel reinforcement,shuttering,structuring,propping etc, and removal of formwork for										
b	a	Bus Stop RCC Foundation Base	Sqm	16	1.2	0.2	3.84	Total	18.91	258.72	4892	Bus Stop RCC Foundation Column	Sqm	16	1	0.7	11.2	3.21	Total	18.91	258.72	4892
c	b	Bus Stop RCC Foundation Base	Sqm	16	1.2	0.2	3.84	Total	18.91	258.72	4892	Bus Stop RCC Foundation Column	Sqm	16	1	0.7	11.2	3.21	Total	18.91	258.72	4892
d	c	KSRB 4.9.2 : Providing T.M.T steel reinforcement,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and waste shall not be measured and paid) cost of materials,labour,HOM of machinery and wastage shall not be measured and paid) complete as per specifications.Specification No. KSB4.6.3.									KSRB 4.9.2 : Providing T.M.T steel reinforcement,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and waste shall not be measured and paid) cost of materials,labour,HOM of machinery and wastage shall not be measured and paid) complete as per specifications.Specification No. KSB4.6.3.											
e	d	KSRB 4.9.2 : Providing T.M.T steel reinforcement,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and waste shall not be measured and paid) cost of materials,labour,HOM of machinery and wastage shall not be measured and paid) complete as per specifications.Specification No. KSB4.6.3.									KSRB 4.9.2 : Providing T.M.T steel reinforcement,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and waste shall not be measured and paid) cost of materials,labour,HOM of machinery and wastage shall not be measured and paid) complete as per specifications.Specification No. KSB4.6.3.											
f	e	KSRB 4.9.2 : Providing T.M.T steel reinforcement,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and waste shall not be measured and paid) cost of materials,labour,HOM of machinery and wastage shall not be measured and paid) complete as per specifications.Specification No. KSB4.6.3.									KSRB 4.9.2 : Providing T.M.T steel reinforcement,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and waste shall not be measured and paid) cost of materials,labour,HOM of machinery and wastage shall not be measured and paid) complete as per specifications.Specification No. KSB4.6.3.											

KSRB 14.6-1-Providing and laying heavy duty cobble stones 60mm thick interlocking pavers, using cement and coarse sand for manufacture of blocks of approved size, shapes and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machines complete as per specification (Page No 101, SI No : 14.6)
Bus Stop at Ch.170.00 to 200.00 24045 143823 Total 23.54 1021.44 10.7 2.2 Sqm 1 24045 Bus Stop at Ch.170.00 to 200.00

  
 Assistant Executive Engineer  
 MCG Mangalore  
 MCC Mangalore  
 Mangalore City Limited  
 Mangalore  
 Mangalore

  
 Supervisor Engineer  
 MCG Mangalore  
 MCC Mangalore  
 Mangalore City Limited  
 Mangalore  
 Mangalore

sr.No.	Description	Unit	No.	l	B	H	Qty.	Rate	Amount
KSRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tipper, trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections, and transportation disposal up to a lead of 5.00km and complete as per specifications. MORTH specification No.301(including transport charges,loading and unloading for lead 5km) (Page No 143,SI No : 19.14)		Cum	4	1.5	1.5	0.80	7.2		
a	Pestal Column for Bus Shelter	Cum	1	8.2	2.2	0.50	9.02		
b	Bus Shelter	Cum	1	8.2	2.2	0.50	9.02		
KSRB 4-1-6 Providing and laying in position plain cement concrete of Mix 1:2:4 with cement @240kgs,with 20mm and down size @0.878 cum and fine aggregate @0.530 not exceeding 15cms. thick,well compacted cum machine mixed,concrete laid in layers cum gravel granite metal coarse aggregates @0.530 in foundation,plinth and cells,including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1.4.2 (Page No 12,SI No : 4.6)		Cum	1	8.2	2.2	0.15	2.706		
a	For Bus Pedstal	Cum	1	4	1.2	1.2	0.15	0.864	
b	RCC foundation	Cum	4	3.57	6093.92	21755			
KSRB 2.8:Providing and Filling in Foundation with Granite /Trap broken metal 100mm and down size,with approved sand including hard packing,ramming,watering including cost of all materials and labour with all leads and lift complete as per specifications. (Page No 6,SI No : 2.15)		Cum	8	1.2	0.15	0.65	1.17		
b	Bus RCC foundation	Cum	8	2.106	2367.68	4986			

KSRB 4.2.1 : Providing and laying in position reinforcement cement concrete of design Mix M25 with OPC cement @240Kgs,with 20mm aggregate @ 0.47 cum with super plastic plasticisers @3 litres confirming to IS 9103-1999 reaffirmed -2008 at machine	Mixed,concrete laid in layers not exceeding 15cms thick,vibrated for all works in walls,return walls,walls (any thickness)including attaching pilasters,columns pillars,posts,streets,buttress es,bed blocks,anchored blocks & plinths etc.,including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications.	Cum	4	1.2	1.2	0.2	1.152	3.952	6967.52	27536
KSRB 4.6.1 Providing and removing centering,shuttering,structuring,propping etc.,and removal of formwork for foundations,footings,bases of columns for etc.,and removal of formwork for foundations,footings,bases of columns for etc.,and removal of formwork for foundations,footings,bases of columns for	etc.,and removal of formwork for foundations,footings,bases of columns for etc.,and removal of formwork for foundations,footings,bases of columns for	Cum	4	1	1	0.7	2.8	Total	3.952	6967.52
KSRB 4.6.2 Providing and removing Bus Stop RCC Foundation Base	etc.,and removal of formwork for foundations,footings,bases of columns for	Cum	4	1.2	1.2	0.2	1.152	Total	3.952	6967.52
KSRB 4.6.2 Providing and removing Bus Stop RCC Foundation Column	etc.,and removal of formwork for foundations,footings,bases of columns for	Cum	4	1	1	0.7	2.8	Total	3.952	6967.52
(Page No 13,SI No : 4.10)	etc.,bed blocks,anchored blocks & plinths etc.,including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications.									
KSRB 4.6.2 Providing and removing Bus Stop RCC Foundation Base	etc.,and removal of formwork for foundations,footings,bases of columns for	Cum	4	1.2	1.2	0.2	1.152	Total	3.952	6967.52
KSRB 4.6.2 Providing and removing Bus Stop RCC Foundation Column	etc.,and removal of formwork for foundations,footings,bases of columns for	Cum	4	1	1	0.7	2.8	Total	3.952	6967.52
(Page No 15,SI No : 4.28)	etc.,and removal of formwork for foundations,footings,bases of columns for									
KSRB 4.9.2 Providing T.M.T steel reinforcement for RCC work including straightening,cutting,bending,hooking,placing anchoring to the adjoining members wherever required,tying with binding wire and in position,lapping and/or welding wherever necessary complete as per design (laps,hooks and wasteage shall not be measured and paid) cost of materials,labour,HOM of machinery complete as per specifications.	etc.,and removal of formwork for foundations,footings,bases of columns for									
KSRB 4.9.2 Providing T.M.T steel	etc.,and removal of formwork for foundations,footings,bases of columns for									
Bus Stop RCC Foundation Base	etc.,and removal of formwork for foundations,footings,bases of columns for	Sqm	16	1.2	0.2	3.84	Total	18.16	258.72	4698
Bus Stop RCC Foundation Column	etc.,and removal of formwork for foundations,footings,bases of columns for	Sqm	16	1	0.7	11.2	Total	18.16	258.72	4698
Bus Stop Pedestal	etc.,and removal of formwork for foundations,footings,bases of columns for	Sqm	2	8.2	0.7	2.46	Total	18.16	258.72	4698
Bus Stop Pedestal	etc.,and removal of formwork for foundations,footings,bases of columns for	Sqm	2	2.2	0.15	0.66	Total	18.16	258.72	4698
do with TMT bars Fe500	etc.,and removal of formwork for foundations,footings,bases of columns for									
No. KBS4.6.3.	etc.,and removal of formwork for foundations,footings,bases of columns for									
Footings and column	etc.,and removal of formwork for foundations,footings,bases of columns for	MT	1	3.952	80	316.16	0.3162	67879.84	21461	

**MCC Mangaluru**  
**Supplementary Engineering Limited**

**Assistant Executive Engineer**  
**MSCL Mangaluru**  
**B. S. D. M. I. L.**

KSRB M300-1A. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity	and grades and cross sections, and loading in tipper, trimming bottom and side slopes, in accordance with requirements of lines specifications.	MORTH specification No.301 (including transporting charges, loading and unloading for lead 5km)	(Page No 143, SI No : 19.14)
Lead & Lift Charges As per page no. 140 of S.R. (upto 5km)	46	Basic rate	
Total	16	Add 12% For area weightage (Mangalore City)	7.44
Lead & Lift Charges As per page no. 140 of S.R. (upto 5km)	62	Add 12% For area weightage (Mangalore City)	69.44 Cum
KSRB 4-1-6 Providing and laying in position plain cement concrete of Mix 1:2:4 with cement @240kg, with 20mm and down size graded coarse metal @0.30 cum and fine aggregate @0.78 cum and labour with all leads mixed, concrete laid in layers not exceeding 15cms, thick, well compacted in foundation, plinth and walls including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1,4.2 (Page No 12, SI No : 4.6)	5441	Add 12% For Area weightage	652.92
KSRB 2.8 Providing and Filling in Foundation with Granite Trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watering including cost of all materials and labour with all leads and lift,complete as per specifications.	541	Add 12% For Area weightage	6093.92 Cum
KSRB 2.8 :Providing and Filling in Foundation with Granite Trap broken metal 100mm and down size,with sand including hand packing,ramming,watering including cost of all materials and labour with all leads and lift,complete as per specifications.	2114	Basic Rate	253.68
(Page No 6, SI No : 2.15)		Add 12% For Area weightage	2367.68 Cum
KSRB 4.2.1 : Providing and laying in position reinforced cement concrete of Design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 litres confirming to IS 9103-1999 reaffirmed-2008 at machine mixed,	0	KSRB 4.2.1 : Providing and laying in position reinforced cement concrete of Design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 litres confirming to IS 9103-1999 reaffirmed-2008 at machine mixed,	(Pg No.13, SI No.4.10)
Concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, return walls, walls (any thickness) including attached plasterers, column splices, posts, struts, buttresses, bed blocks, anchor blocks & pilasters etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6	6221	Basic Rate	746.52
Add 12% For area weightage	746.52		6967.52 Cum

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KSRB 4.6.1 Providing and removing centring,shuttering,stripping,proppling etc.,and removal of formwork,footings,bases of columns for mass concrete including cost of all materials,labour complete as per specifications.

(Page No 15,SI No : 4.28)

KSRB 4.9.2 Providing T.M.T steel reinforcement for RCC work including

straightening,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinery complete as per

specifications.Specification No. KSB 4.6.3.

KSRB SI No.4.46.2 Pg No.17  
do with TMT bars Fe500

straiighting,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with straightening,cutting,bending,hooking,placing in position,lapping and/or welding wherever required,tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps,hooks and wastage shall not be measured and paid) cost of materials,labour,HOM of machinery complete as per

KSRB 4.6.2 Providing T.M.T steel reinforcement for RCC work including

Basic Rate  
60607  
7272.84  
67879.84 MT  
Basic Rate  
912  
109.44  
Add 12% For area weightage  
Basic rate


(Page No 101,SI No : 14.6)  
Providing and laying heavy duty cobble stones 60mm thick,using cement and coarse sand for manufacture of blocks of approved size,shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness ) and compacting with plate vibratory having 3 tons compaction force thereby forcing part of sand undemash to come up in between joints,final compaction of paved surface joints into its final level,including cost of materials,labour and HOM of machines complete as per specifications.

Assitant Executive engineer  
Rajeshwar Singh  
Supernitent Engineer  
MCC Mangalore  
Supt Manager  
Mangalore  
MSCL Mangalore  
Assistant Executive engineer  
Rajeshwar Singh  
Supernitent Engineer  
MCC Mangalore  
Supt Manager  
Mangalore  
MSCL Mangalore Limited

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