

Smart Bus Stop-Civil Cost For One Bus Stop (13.5m x 2.5m) - Type A

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
1	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(Including transporting charges,loading and unloading for lead 5km) (Page No 143,Sl No : 19.14)								
	Pestal Column for Bus Shelter	Cum	4	1.5	1.5	0.80	7.2		
	Bus Shelter base	Cum	1	13.5	2.5	0.50	16.875		
						Total	24.075	69.44	1672
2	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 cills,including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1,4.2 (Page No 12,Sl No : 4.6)								
a	For Bus Pedstal	Cum	1	13.5	2.5	0.15	5.0625		
b	Rcc foundation	Cum	4	1.2	1.2	0.15	0.864		
						Total	5.9265	6093.92	36116
3	KSRB 2.8 :Providing and Filling in Foundation with Granite /Trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watring including cost of all materials and labour with all leads and lift.complete as per specifications. (Page No 6,Sl No : 2.15)								
b	Pestal Column for Bus Shelter	Cum	8	1.5	0.15	0.65	1.17		
	Rcc foundation	Cum	8	1.2	0.15	0.65	0.936		
						Total	2.106	2367.68	4986

Smart Bus Stop-Civil Cost For One Bus Stop (13.5m x 2.5m) - Type A

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
4	KSRB 4.2.1 : Providing and laying in position reinforcement cement concrete of design Mix M25 with OPC cement @240Kgs,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,buttresse s,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)								
a	Bus Stop RCC Foundation Base	Cum	4	1.2	1.2	0.2	1.152		
b	Bus Stop RCC Foundation Column	Cum	4	1	1	0.7	2.8		
c	Bus Stop Pedstal	Cum	1	13.5	2.5	0.2	6.75		
						Total	10.70	6967.52	74566
5	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 : 4.22)								
a	Bus Stop RCC Foundation Base	Sqm	16	1.2		0.2	3.84		
b	Bus Stop RCC Foundation Column	Sqm	16	1		0.7	11.2		
c	Bus Stop Pesdtal	Sqm	2	13.5		0.15	4.05		
		Sqm	2	2.5		0.15	0.75		
						Total	19.84	258.72	5133
6	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 adjoining 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 SI No.4.46.2 Pg No.17								
a	Footing and column	MT	1	3.952	80	316.16	0.3162		
						Total	0.3162	67879.84	21461

Smart Bus Stop-Civil Cost For One Bus Stop (13.5m x 2.5m) - Type A

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
7	KSRB 14.6-1:Providing and laying heavy duty cobble stones 60mm thick interlocking pavers,using cement and course sand for manufacture of blocks of approved size,shapes and colour with a minimum commpressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness)and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints,final compaction of paver surface joints into its final level,including cost of materials,labour and HOM of machineries complete as per specification (Page No 101,Sl No : 14.6)								
a	Bus Stop at Ch.170.00 to 200.00	Sqm	1	13.5	2.5		33.75	1021.44	34474
								Total	178408


Assistant Executive engineer
MSCL Mangaluru


3/2/18
Superintendent Engineer
MCC Mangaluru

Smart Bus Stop-Civil Cost For One Bus Stop (10.7m x 2.2m) - Type B

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount	
1	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(Including transporting charges,loading and unloading for lead 5km) (Page No 143,SI No : 19.14)									
a	Pestal Column for Bus Shelter	Cum	4	1.5	1.5	0.80	7.2			
b	Bus Shelter	Cum	1	10.7	2.2	0.50	11.77			
							Total	18.97	69.44	1317
2	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 cills,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)									
a	For Bus Pedstal	Cum	1	10.7	2.2	0.15	3.531			
b	Rcc foundation	Cum	4	1.2	1.2	0.15	0.864			
							Total	4.395	6093.92	26783
3	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. (Page No 6,SI No : 2.15)									
a	Pestal Column for Bus Shelter	Cum	8	1.5	0.15	0.65	1.17			
b	Bus Rcc foundation	Cum	8	1.2	0.15	0.65	0.936			
							Total	2.106	2367.68	4986

Smart Bus Stop-Civil Cost For One Bus Stop (10.7m x 2.2m) - Type B

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
4	KSRB 4.2.1 : Providing and laying in position reinforcement cement concrete of design Mix M25 with OPC cement @240Kgs,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,buttresse s,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,Sl No : 4.10)								
a	Bus Stop RCC Foundation Base	Cum	4	1.2	1.2	0.2	1.152		
b	Bus Stop RCC Foundation Column	Cum	4	1	1	0.7	2.8		
c	Bus Stop Pedstal	Cum	1	10.7	2.2	0.2	4.708		
							Total	8.66	6967.52
5	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,Sl No : 4.28)								
a	Bus Stop RCC Foundation Base	Sqm	16	1.2		0.2	3.84		
b	Bus Stop RCC Foundation Column	Sqm	16	1		0.7	11.2		
c	Bus Stop Pesdtal	Sqm	2	10.7		0.15	3.21		
		Sqm	2	2.2		0.15	0.66		
							Total	18.91	258.72
6	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 SI No.4.46.2,Pg No.17								
a	Footing	MT	1	1.152	80	92.16	0.092		

Smart Bus Stop-Civil Cost For One Bus Stop (10.7m x 2.2m) - Type B

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
b	Column	MT	1	2.8	80	224	0.224		
						Total	0.316	67879.84	21461
7	KSRB 14.6-1:Providing and laying heavy duty cobble stones 60mm thick interlocking pavers,using cement and course sand for manufacture of blocks of approved size,shapes and colour with a minimum commpressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness)and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints,final compaction of paver surface joints into its final level,including cost of materials,labour and HOM of machineries complete as per specification (Page No 101,SI No : 14.6)								
a	Bus Stop at Ch.170.00 to 200.00	Sqm	1	10.7	2.2		23.54	1021.44	24045
								Total	143823


Assistant Executive engineer
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Superintendent Engineer
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Smart Bus Stop-Civil Cost For One Bus Stop (6.5m x 2.2m) - Type C

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
1	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(Including transporting charges,loading and unloading for lead 5km) (Page No 143,Sl No : 19.14)								
a	Pestal Column for Bus Shelter	Cum	4	1.5	1.5	0.80	7.2		
b	Bus Shelter	Cum	1	8.2	2.2	0.50	9.02		
						Total	16.22	69.44	1126
2	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 cills,including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1,4.2 (Page No 12,Sl No : 4.6)								
a	For Bus Pedstal	Cum	1	8.2	2.2	0.15	2.706		
b	Rcc foundation	Cum	4	1.2	1.2	0.15	0.864		
						Total	3.57	6093.92	21755
3	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. (Page No 6,Sl No : 2.15)								
a	Pestal Column for Bus Shelter	Cum	8	1.5	0.15	0.65	1.17		
b	Bus Rcc foundation	Cum	8	1.2	0.15	0.65	0.936		
						Total	2.106	2367.68	4986

Smart Bus Stop-Civil Cost For One Bus Stop (6.5m x 2.2m) - Type C

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
4	KSRB 4.2.1 : Providing and laying in position reinforcement cement concrete of design Mix M25 with OPC cement @240Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reaffirmed -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,buttres ses,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)								
a	Bus Stop RCC Foundation Base	Cum	4	1.2	1.2	0.2	1.152		
b	Bus Stop RCC Foundation Column	Cum	4	1	1	0.7	2.8		
						Total	3.952	6967.52	27536
5	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)								
a	Bus Stop RCC Foundation Base	Sqm	16	1.2		0.2	3.84		
b	Bus Stop RCC Foundation Column	Sqm	16	1		0.7	11.2		
c	Bus Stop Pesdtal	Sqm	2	8.2		0.15	2.46		
		Sqm	2	2.2		0.15	0.66		
						Total	18.16	258.72	4698
6	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 adjoining 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.								
a	do with TMT bars Fe500 Footing and column	MT	1	3.952	80	316.16	0.3162		
						Total	0.3162	67879.84	21461

Smart Bus Stop-Civil Cost For One Bus Stop (6.5m x 2.2m) - Type C

Sr.No.	Description	Unit	No.	L	B	H	Qty.	Rate	Amount
7	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 commpressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness)and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints,final compaction of paver surface joints into its final level,including cost of materials,labour and HOM of machineries complete as per specification (Page No 101,SI No : 14.6)								
a	Bus Stop at Ch.170.00 to 200.00	Sqm	1	8.2	2.2		18.04	1021.44	18427
								Total	99989

[Signature]
Assistant Executive engineer
MSCL Mangaluru

[Signature] 3/2/18
Superintendent Engineer
MCC Mangaluru

**Name of the Work :- Mangalore Smart City
Rate Analysis for BUS SHELTER**

1	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(Including transporting charges,loading and unloading for lead 5km) (Page No 143,SI No : 19.14)			
	Basic rate		46	
	Lead & Lift Charges As per page no.140 of S.R. (upto 5km)		16	
	Total		62	
	Add 12% For area weightage (Mangalore City)		7.44	
		Rate	69.44	Cum
2	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 cills,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)			
	Basic Rate		5441	
	Add 12% For Area weightage		652.92	
		Rate	6093.92	Cum
3	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. (Page No 6,SI No : 2.15)			
	Basic Rate		2114	
	Add 12% For Area weightage		253.68	
		Rate	2367.68	Cum
4	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 metal coarse aggregates @0.70 cum and fine aggretes @ 0.47cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6 (Pg No.13,SI No.4.10)			
	Basic Rate		6221	
	Add 12% For area weightage		746.52	
		Rate	6967.52	Cum

5	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)			
	Basic Rate		231	
	Add 12% For Area weightage		27.72	
		Rate	258.72	Sqm
6	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 adjoining 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 SI No.4.46.2,Pg No.17			
	Basic Rate		60607	
	Add 12% For Area weightage		7272.84	
		Rate	67879.84	MT
7	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 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Page No 101,SI No : 14.6)			
	Basic rate		912	
	Add 12% For area weightage		109.44	
		Rate	1021.44	Sqm


Assistant Executive engineer
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MCC Mangaluru

RATE ANALYSIS FOR TYPE A BUS SHELTER

Name of the work:- Mangaluru Smart City				
Rate Analysis of Bus Shelter				
Rate Analysis - Bus Shelter (Type A)				
1	Type A Bus Shelter (13.5 x 2.5 m) with E-Toilet			
	Fabrication and erection (Rate per Kg)- Market Rate		360.00	
	Total weight per Bus Shelter (kg)		3300.00	
	Total cost for fabrication (3300 kg)		11,88,000.00	
	ICT cost		3,12,000.00	
	E toilet cost		5,75,000.00	
		Rate(in Rs)	20,75,000.00	Each


Assistant Executive Engineer

MSCL Mangaluru


Superintendent Engineer

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RATE ANALYSIS FOR TYPE B BUS SHELTER

Name of the work:- Mangaluru Smart City				
Rate Analysis of Bus Shelter				
Rate Analysis - Bus Shelter (Type B)				
2	Type B Bus Shelter (10.7 x 2.2 m) without E-Toilet			
	Fabrication and erection (Rate per Kg)- Market Rate		360.00	
	Total weight per Bus Shelter (kg)		3300.00	
	Total cost for fabrication (3300 kg)		11,88,000.00	
	ICT cost		3,12,000.00	
		Rate(in Rs)	15,00,000.00	Each


Assistant Executive Engineer

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Superintendent Engineer

 MCC Mangaluru

RATE ANALYSIS FOR TYPE C BUS SHELTER

Name of the work:- Mangaluru Smart City				
Rate Analysis of Bus Shelter				
Rate Analysis - Bus Shelter (Type C)				
3	Type C Bus Shelter (6.50 x 2.2 m) without E-Toilet			
	Fabrication and erection (Rate per Kg)- Market Rate		360.00	
	Total weight per Bus Shelter (kg)		2640.00	
	Total cost for fabrication (2640 kg)		950400.00	
	ICT cost		249600.00	
		Rate(in Rs)	12,00,000.00	Each



Assistant Executive Engineer

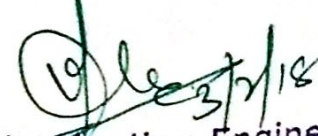
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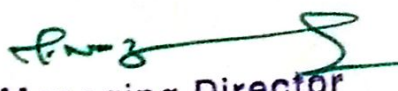

Superintendent Engineer
 **MCC Mangaluru**

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.	4	Rs. 20,75,000.00	Rs. 83,00,000.00
2	Type B – Bus Shelter without E-Toilet, but including Interactive Display and Real time indicator	14	Rs. 15,00,000.00	Rs. 2,10,00,000.00
3	Type C – Bus Shelter without E-Toilet, but including Interactive Display and Real time indicator with reduced dimension of 6mx2.2m	6	Rs. 12,00,000.00	Rs. 72,00,000.00
4	Civil Cost including Foundation and Paving (Type A)	4	Rs. 1,78,408.00	Rs. 7,13,632.00
5	Civil Cost including Foundation and Paving (Type B)	14	Rs. 1,43,823.00	Rs. 20,13,522.00
6	Civil Cost including Foundation and Paving (Type C)	6	Rs. 99,989.00	Rs. 5,99,934.00
Estimated Cost				Rs. 3,98,27,088.00
Contingencies 3%				Rs. 11,94,813.00
Tax if applicable @ 8%				Rs. 31,86,167.00
Administrative Expenditure Incl. Tender Premium and Miscellaneous Cost towards demolition of existing structures and connection of electricity, water supply and sanitation etc				Rs. 17,91,932.00
Total Estimated Cost of Installation				Rs. 4,60,00,000.00

Note: Bus Bays are not considered in estimates for Phase II Bus Shelter locations.


Assistant Executive Engineer
Mangaluru Smart City Limited
Mangaluru


Superintending Engineer
Mangaluru Smart City Limited
Mangaluru


Managing Director
Mangaluru Smart City Limited
Mangaluru

Mangaluru Smart City Limited (MSCL)