

BRUHAT BANGALORE MAHANAGARA PALIKE**Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road****Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction****Name of the Item: Site Clearance and Dismantling**

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
1.01	KSRRB 200-1: Cutting of trees girth from 300mm to 600mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Chapter 2	Each							
	(P.No. 143, I.No. 18.1 of PW, P&I WTD S.R 2011-12)		7	--	--		7.00	145.098	1015.69
1.02	KSRRB 200-1: Cutting of trees girth from 600mm to 900mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Chapter 2	Each							
	(P.No. 143, I.No. 18.2 of PW, P&I WTD S.R 2011-12)		10	--	--		10.00	290.142	2901.42
1.03	KSRRB 200-1: Cutting of trees girth from 900mm to 1800mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Chapter 2	Each							
	(P.No. 143, I.No. 18.3 of PW, P&I WTD S.R 2011-12)		8	--	--		8.00	724.68	5797.44
1.04	KSRRB 200-1: Cutting of trees girth from 1800mm to 2700mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Chapter 2	Each							
	(P.No. 143, I.No. 18.4 of PW, P&I WTD S.R 2011-12)		7	--	--		7.00	1208.52	8459.64
1.05	KSRRB 200-1: Cutting of trees girth from above 2700mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Chapter 2	Each							
	(P.No. 143, I.No. 18.5 of PW, P&I WTD S.R 2011-12)		6	--	--		6.00	2900.88	17405.28

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
1.06	KSRRB M200-12.1. 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. i) Lime/Cement Concrete. I.By Manual means, A. Lime Concrete, Cement Concrete Grade M-10 & below PCC	Cum							
	(P.No.144, I.No.18.17 of PW,P&IWT D S.R 2011-12)								
	Compound Bed Concrete		1	60.00	0.90	0.10	5.40		
	Drain Bed								
	LHS		1	556.00	1.85	0.10	102.86		
	RHS		1	657.00	1.85	0.10	121.55		
							229.81		
						Say	230.00	244.08	56138.40
1.07	KSRRB M200-12.2. 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 and serviceable material with all lifts complete as per specifications. i) Lime/Cement Concrete.I.By Manual means, A. Lime Concrete, Cement Concrete Grade M-15 & M-20 PCC	Cum							
	(P.No.144, I.No.18.18 of PW,P&IWT D S.R 2011-12)								
	Compound Plinth & Coping		2	60.00	0.45	0.10	5.40		
	Footpath								
	LHS		1	75.00	1.50	0.15	16.88		
	B/w Main Carriageway and Service Road		1	480.00	4.00	0.15	288.00		
	Retaining Wall		1	680.00	0.45	0.10	30.60		
							340.88		
						Say	341.00	293.76	100172.16
1.08	Removing of Footpath slab	Sqm							
	(P.No.268, I.No. 37.56 of PW,P&IWT D S.R 2011-12)								
	LHS		1	75.00	1.50	--	112.50		
	B/w Main Carriageway and Service Road		1	180.00	4.00	--	720.00		
							832.50		
						Say	832.50	95.796	79750.17
1.09	Removing BS Slab of Drain and Stacking	Sqm							
	(P.No.28, I.No. 5.32 of PW,P&IWT D S.R 2011-12)								
	LHS		1	481.00	2.00	--	962.00		
	RHS		1	657.00	3.50	--	2299.50		
	Between Main Carriageway and Service Road								
	RHS		1	180.00	3.00	--	540.00		
	Kerb LHS		1	556.00	0.40	--	222.40		
	Kerb RHS		1	657.00	0.40	--	262.80		
	Median Kerb		2	690.00	0.40	--	552.00		
							4838.70		
						Say	4839.00	47.52	249949.28

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
1.10	KSRRB M200-15.2. 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. ii) Dismantling Stone Masonary B. Rubble Stone Masonry, in Cement Mortar. SSM	Cum							
	(P.No.145, I.No.18.27 of PW,P&I WTD S.R 2011-12)								
	For Drain								
	LHS		2	556.00	0.45	1.00	500.40		
	RHS		2	657.00	0.45	1.00	591.30		
	For Compound								
	Sub Structure		1	60.00	0.75	0.25	11.25		
			1	60.00	0.60	0.60	21.60		
			1	60.00	0.45	0.45	12.15		
	Super Structure		1	60.00	0.45	2.00	54.00		
	Retaining Wall		1	680.00	0.45	1.00	306.00		
							1496.70		
						Say	1497.00	194.4	291016.80
	Dismantling of Existing Culverts								
1.11	KSRRB M200-12.1. 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, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime/Cement Concrete.I.By Manual means, A. Lime Concrete, Cement Concrete Grade M-10 & below PCC	Cum							
	(P.No.144, I.No.18.17 of PW,P&I WTD S.R 2011-12)								
	Bed Concrete								
	10m Length	1	1	10.00	2.10	0.10	2.10		
	8m Length	1	1	8.00	2.10	0.10	1.68		
							3.78		
						Say	4.00	244.08	976.32
1.12	KSRRB M200-15.2. 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. ii) Dismantling Stone Masonary B. Rubble Stone Masonry, in Cement Mortar. SSM	Cum							
	(P.No.145, I.No.18.27 of PW,P&I WTD S.R 2011-12)								
	SSM								
	10m Length	1	2	10.00	0.45	1.00	9.00		
	8m Length	1	2	8.00	0.45	1.00	7.20		
							16.20		
						Say	16.50	194.40	3207.60

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
1.13	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. By mechanical means. A. Cement concrete Grade M-15 & M-20.	Cum							
	(P.No.144, I.No.18.20 of PW,P&I WTD S.R 2011-12)								
	Deck Slab								
	10m Length	1	1	10.00	1.90	0.30	5.70		
	8m Length	1	1	8.00	1.90	0.30	4.56		
							10.26		
						Say	10.50	324.00	3402.00
1.14	KSRRB M200-17.1. 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. iii) Dismantling stone masonry. A. Steel Work in all types of sections upto a Height of 5m above plinth level excluding cutting of rivet including dismembering. MoRT&H Specification No.202	Ton							
	(P.No.145, I.No.18.33 of PW,P&I WTD S.R 2011-12)								
	Consider 100kg/Cum for Slab		1	10.50	--	--	1.05		
						Say	1.50	928.80	1393.20
1.15	KSRRB M100-4.1. Cost of Haulage including Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kanker / Moorum.Placing tipper at loading point, loading with front end loader,dumping , turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH-100 Chapter 1 Case-I : Surface Road	Cum							
	(P.No.141&147, of PW, P&I WTD SR 2011-12)								
	Qty same as item No. 1.10, 1.12								
	For 20Km RS. $2 \times 1.8 \times 20 = (72.00 + 62.20) \times 1.08 = 144.94$	1	1513.50	--	--	1513.50	144.94		219360.64
1.16	KSRRB M100-4.1. Cost of Haulage, including Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kanker / Moorum.Placing tipper at loading point, loading with front end loader,dumping , turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH-100/ Chapter 1 Case-I : Surface Road	Cum							
	(P.No.141&147, of PW, P&I WTD SR 2011-12)								
	Qty same as item No. 1.06,1.07,(1.08 X 0.10), (1.09 X 0.45 X 0.20), 1.11, 1.13								
	For 20Km Rs. $2 \times 1.3 \times 20 = (52 + 62.20) \times 1.08 = 123.34$	1	1152.65	--	--	1152.65			
						Say	1153.00	123.34	12211.02

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
1.17	KSRRB M100-4.2. Haulage of materials by tipper Including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 For Steel								
	(P.No.141&147, of PW, P&IWTD SR 2011-12)								
	Qty same as item No. 1.14								
	For 20Km Rs. $2.00 \times 7.85 \times 20 = (52.00 + 103.70) \times 1.08 = 451.12$		1	1.50	--	--	1.50	451.12	676.67
									1163833.73
1.18	Miscellaneous and Rounding off								166.27
				Total Cost of Site Clearance and Dismantling					1164000.00

BRUHAT BANGALORE MAHANAGARA PALIKE**Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road****Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction****Name of the Item: Formation of Slip Road and Surface Level Road**

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
2.01	KSRRB 300-1. Earthwork excavation by manual means in Ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH Chapter 3.	Cum							
	(P.No. 149, I.No.19.1 of PW, P & IWTDR 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	1.09	1126.79		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	1.09	519.11		
	From CH-820 to CH-1000		1	180.00	8.33	1.09	1634.74		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	1.09	478.15		
	From CH-560 to CH-740		1	180.00	5.33	1.09	1044.91		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	1.09	984.54		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	1.09	447.17		
	From CH-820 to CH-1000		1	180.00	7.90	1.09	1549.98		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	1.09	756.46		
	From CH-560 to CH-740		1	180.00	5.93	1.09	1163.47		
	For Providing Left Turn from Service Road LHS		1	880.00		1.09	959.20		
	For Providing Left Turn from Service Road RHS		1	150.00		1.09	163.50		
							10828.01		
						Say	10828.50	62.86	680636.20
2.02	KSRRB M100-4.2. Haulage of materials by tipper Including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I : Surface Road	Cum							
	(P. No. 141&147 of PW, P&IWTDR 2011-12)						10828.50	123.34	1335587.19
2.03	KSRRB M300-55. Construction of subgrade and earthen shoulders with approved material gravel / murrum with all lifts & leads, transporting to site, spreading grading to required slope and compacted to meet requirement of Table 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller) MORTH Specification No. 305	Cum							
	(P.No. 156, I.No.19.62 of PW, P&IWTDR 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	0.50	516.88		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	0.50	238.13		
	From CH-820 to CH-1000		1	180.00	8.33	0.50	749.88		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	0.50	219.33		
	From CH-560 to CH-740		1	180.00	5.33	0.50	479.31		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	0.50	451.63		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	0.50	205.13		
	From CH-820 to CH-1000		1	180.00	7.90	0.50	711.00		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	0.50	347.00		
	From CH-560 to CH-740		1	180.00	5.93	0.50	533.70		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	For Providing Left Turn from Service Road LHS		1	880.00		0.50	440.00		
	For Providing Left Turn from Service Road RHS		1	150.00		0.50	75.00		
	Filling of Tree roots area		38	2.00	2.00	2.50	380.00		
							5346.98		
						Say	5347.00	174.96	935511.12
2.04	KSRRB M400-7 Construction of granular sub-base by providing coarse graded material, spreading 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 specifications. For Coarse graded granular sub-base material as per 400-2 For Grading I Material.	Cum							
	(P.No.164, I.No.20.6.1 of PW,P&I WTD S.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	0.20	206.75		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	0.20	95.25		
	From CH-820 to CH-1000		1	180.00	8.33	0.20	299.95		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	0.20	87.73		
	From CH-560 to CH-740		1	180.00	5.33	0.20	191.73		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	0.20	180.65		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	0.20	82.05		
	From CH-820 to CH-1000		1	180.00	7.90	0.20	284.40		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	0.20	138.80		
	From CH-560 to CH-740		1	180.00	5.93	0.20	213.48		
	For Providing Left Turn from Service Road LHS		1	880.00		0.20	176.00		
	For Providing Left Turn from Service Road RHS		1	150.00		0.20	30.00		
							1986.79		
						Say	1987.00	1050.84	2088019.08
2.05	KSRRB M400-17. Providing laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specifications. MORTH Specification No. 406.	Cum							
	(P.No.166, I.No.20.18 PW,P&I WTD S.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	0.25	258.44		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	0.25	119.06		
	From CH-820 to CH-1000		1	180.00	8.33	0.25	374.94		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	0.25	109.67		
	From CH-560 to CH-740		1	180.00	5.33	0.25	239.66		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	0.25	225.81		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	0.25	102.56		
	From CH-820 to CH-1000		1	180.00	7.90	0.25	355.50		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	0.25	173.50		
	From CH-560 to CH-740		1	180.00	5.93	0.25	266.85		
	For Providing Left Turn from Service Road LHS		1	880.00		0.25	220.00		
	For Providing Left Turn from Service Road RHS		1	150.00		0.25	37.50		
							2483.49		
						Say	2484.00	1060.56	234431.04

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
2.06	KSRRB M500-6. Providing and applying Primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502	Sqm							
	(P.No.171, L.No.21.6 of PW,P&IWTDS.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	--	1033.75		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	--	476.25		
	From CH-820 to CH-1000		1	180.00	8.33	--	1499.76		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	--	438.67		
	From CH-560 to CH-740		1	180.00	5.33	--	958.63		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	--	903.25		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	--	410.25		
	From CH-820 to CH-1000		1	180.00	7.90	--	1422.00		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	--	694.00		
	From CH-560 to CH-740		1	180.00	5.93	--	1067.40		
	For Providing Left Turn from Service Road LHS		1	880.00		--	880.00		
	For Providing Left Turn from Service Road RHS		1	150.00		--	150.00		
							9933.96		
						Say	9934.00	40.59	403185.30
2.07	KSRRB 500-8 Providing and applying tack coat on granular surface treated with primer at 3 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machienries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No. 172 L.No.21.8 of PW,P&IWTDS.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	--	1033.75		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	--	476.25		
	From CH-820 to CH-1000		1	180.00	8.33	--	1499.76		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	--	438.67		
	From CH-560 to CH-740		1	180.00	5.33	--	958.63		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	--	903.25		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	--	410.25		
	From CH-820 to CH-1000		1	180.00	7.90	--	1422.00		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	--	694.00		
	From CH-560 to CH-740		1	180.00	5.93	--	1067.40		
	For Providing Left Turn from Service Road LHS		1	880.00		--	880.00		
	For Providing Left Turn from Service Road RHS		1	150.00		--	150.00		
							9933.96		
						Say	9934.00	19.98	198481.32

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
2.08	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregaters with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to acheive the deisred density, 50 / 75 mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack coat with lead upto 1km including cost of all materials, labour, HOM of machineries. complete as per specifications. MORTH Chapter 5 with 60 / 70 grade bitumen	Cum							
	(P.No.172 I.No. 21.11.2 of PW,P&IWTDS.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	0.05	51.69		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	0.05	23.81		
	From CH-820 to CH-1000		1	180.00	8.33	0.05	74.99		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	0.05	21.93		
	From CH-560 to CH-740		1	180.00	5.33	0.05	47.93		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	0.05	45.16		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	0.05	20.51		
	From CH-820 to CH-1000		1	180.00	7.90	0.05	71.10		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	0.05	34.70		
	From CH-560 to CH-740		1	180.00	5.93	0.05	53.37		
	For Providing Left Turn from Service Road LHS		1	880.00		0.05	44.00		
	For Providing Left Turn from Service Road RHS		1	150.00		0.05	7.50		
							496.70		
						Say	497.00	6490.58	3225820.25
2.09	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWTDS.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	--	1033.75		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	--	476.25		
	From CH-820 to CH-1000		1	180.00	8.33	--	1499.76		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	--	438.67		
	From CH-560 to CH-740		1	180.00	5.33	--	958.63		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	--	903.25		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	--	410.25		
	From CH-820 to CH-1000		1	180.00	7.90	--	1422.00		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	--	694.00		
	From CH-560 to CH-740		1	180.00	5.93	--	1067.40		
	Battery limit towards Basavoshwara,nagar 1st Main Road Junction		1	80.00	38.74	--	3099.47		
	Battery limit towards Manjunathnagar Road Junction		1	40.00	31.69	--	1267.40		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	--	1909.33		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	--	1131.33		
	Towards Prakashnagar		1	100.00	11.38	--	1138.00		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Towards Shivanagar 8th Main Road		1	100.00	8.33	--	833.33		
							18232.82		
						Say	18283.00	16.46	300923.55
2.10	KSRRB M500-17. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.0 to 4.5% by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.7 complete in all respects as per specifications. Bitumen 60/70 MoRT&H Specification No. 507	Cum							
	(P.No. 174 I.No.21.19.2 of PW,P&I WTD S.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	0.05	51.69		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	0.05	23.81		
	From CH-820 to CH-1000		1	180.00	8.33	0.05	74.99		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	0.05	21.93		
	From CH-560 to CH-740		1	180.00	5.33	0.05	47.93		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	0.05	45.16		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	0.05	20.51		
	From CH-820 to CH-1000		1	180.00	7.90	0.05	71.10		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	0.05	34.70		
	From CH-560 to CH-740		1	180.00	5.93	0.05	53.37		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	38.74	0.05	154.97		
	Battery limit towards Manjunathnagar Road Junction		1	40.00	31.69	0.05	63.37		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	0.05	95.47		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	0.05	56.57		
	Towards Prakashnagar		1	100.00	11.38	0.05	56.90		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	0.05	41.67		
							914.14		
						Say	914.50	8856.14	8098940.40
2.11	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm. heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&I WTD SR of 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	--	1033.75		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	--	476.25		
	From CH-820 to CH-1000		1	180.00	8.33	--	1499.76		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	--	438.67		
	From CH-560 to CH-740		1	180.00	5.33	--	958.63		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.03	--	903.25		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	--	410.25		
	From CH-820 to CH-1000		1	180.00	7.90	--	1422.00		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	--	694.00		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From CH-560 to CH-740		1	180.00	5.93	--	1067.40		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	38.74	--	3099.47		
	Battery limit towards Manjunathnagar Road		1	40.00	31.69	--	1267.40		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	--	1909.33		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	--	1131.33		
	Towards Prakashnagar		1	100.00	11.38	--	1138.00		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	--	833.33		
	Cross Road								
	Ch: 1240		1	50.00	5.00	--	250.00		
	Ch: 1160		1	50.00	4.55	--	227.50		
	Ch: 1140		1	50.00	5.92	--	296.00		
	Ch: 980		1	50.00	8.00	--	400.00		
	Ch: 940		1	50.00	5.00	--	250.00		
	Ch: 900		1	50.00	4.58	--	229.00		
	Ch: 880		1	50.00	4.11	--	205.25		
	Ch: 860		1	50.00	5.16	--	258.00		
	Ch: 820		1	50.00	5.45	--	272.50		
	Ch: 740		1	50.00	5.91	--	295.50		
	Ch: 700		1	50.00	5.75	--	287.50		
							21254.07		
						Say	21254.00	16.46	349823.84
2.12	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum							
	(P.No.175 of I.No.21.22.4 in PW,P&I WTD S.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.34	0.04	41.35		
	From CH-1000 to CH-1050(Junction)		1	50.00	9.53	0.04	19.05		
	From CH-820 to CH-1000		1	180.00	8.33	0.04	59.99		
	From CH-740 to CH-820 (Junction)		1	80.00	5.48	0.04	17.55		
	From CH-560 to CH-740		1	180.00	5.33	0.04	38.35		
	East Side					0.04			
	From CH-1060 to CH-1160		1	100.00	9.03	0.04	36.13		
	From CH-1000 to CH-1050(Junction)		1	50.00	8.21	0.04	16.41		
	From CH-820 to CH-1000		1	180.00	7.90	0.04	56.88		
	From CH-740 to CH-820 (Junction)		1	80.00	8.68	0.04	27.76		
	From CH-560 to CH-740		1	180.00	5.93	0.04	42.70		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	38.74	0.04	123.98		
	Battery limit towards Manjunathnagar Road		1	40.00	31.69	0.04	50.70		
	Battery Limit					0.04			
	Towards Majestic		1	100.00	19.09	0.04	76.37		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	0.04	45.25		
	Towards Prakashnagar		1	100.00	11.38	0.04	45.52		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	0.04	33.33		
	Cross Road					0.04			

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Ch: 1240		1	50.00	5.00	0.04	10.00		
	Ch: 1160		1	50.00	4.55	0.04	9.10		
	Ch: 1140		1	50.00	5.92	0.04	11.84		
	Ch: 980		1	50.00	8.00	0.04	16.00		
	Ch: 940		1	50.00	5.00	0.04	10.00		
	Ch: 900		1	50.00	4.58	0.04	9.16		
	Ch: 880		1	50.00	4.11	0.04	8.21		
	Ch: 860		1	50.00	5.16	0.04	10.32		
	Ch: 820		1	50.00	5.45	0.04	10.90		
	Ch: 740		1	50.00	5.75	0.04	11.50		
	Ch: 700		1	50.00	5.75	0.04	11.50		
							849.84		
						Say	850.00	11208.63	9527334.48
2.13	Providing and fixing Pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.	Nos.							
	(P.No.28, I.No.5.30 of PW, P&IWTD SR 2011-12)								
	Median								
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		2	80.00	--	--	356.00		
	Battery limit towards Manjunathnagar Road		2	40.00	--	--	178.00		
	Towards Majestic		2	70.00	--	--	311.00		
	For Footpath								
	Ch 520 to Ch 1240								
	West Side		1	633.30	--	--	1407.00		
	East Side		1	658.46	--	--	1463.00		
	Ch 800 to Ch 840		1	30.00	--	--	67.00		
	Ch 1220 to Ch 1060 West Side		1	250.00	--	--	556.00		
	Ch 1220 to Ch 1060 East Side		1	275.00	--	--	611.00		
	Ch 1000 to Ch 860 West Side		1	160.00	--	--	356.00		
							5305.00		
						Say	5305.00	248.40	1317762
2.14	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	Sqm							
	(P.No.191, I.No. 24.1 of PW,P&IWTD SR 2011-12)								
	For Kerb Painting								
	Median								
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		2	80.00	--	0.45	72.00		
	Battery limit towards Manjunathnagar Road		2	40.00	--	0.45	36.00		
	Towards Majestic		2	70.00	--	0.45	63.00		
	For Footpath								
	Ch 520 to Ch 1240								
	West Side		1	633.30	--	0.45	284.99		
	East Side		1	658.46	--	0.45	296.31		
	Ch 800 to Ch 840		1	30.00	--	0.45	13.50		
	Ch 1220 to Ch 1060 West Side		1	250.00	--	0.45	112.50		
	Ch 1220 to Ch 1060 East Side		1	275.00	--	0.45	123.75		
	Ch 1000 to Ch 860 West Side		1	160.00	--	0.45	72.00		
							1074.04		
						Say	1074.50	48.49	104.654

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
2.15	KSRS M800 - 13. Road Marking with Hot Applied Thermoplastic Compound with Reflecting Glass Beads on Bituminous Surface: - Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.	Sqm							
	(P.No.193, I.No.24.15 of PW,P&I WTD 2011-12)								
	Edge Lane Marking line								
	Ch 560 to Ch 1160		4	600.00	0.15	--	360.00		
	Battery Limit - Basaveshwaranagara Ch 1160		4	80.00	0.15	--	48.00		
	Battery Limit - Manjunathnagar Ch 520 to		4	40.00	0.15	--	24.00		
	Towards Majestic		4	100.00	0.15	--	60.00		
	Towards Shivanagar 1st Main Road		2	100.00	0.15	--	30.00		
	Towards Prakashnagar		2	100.00	0.15	--	30.00		
	Towards Shivanagar 8th Main Road		2	100.00	0.15	--	30.00		
	Center line								
	Battery Limit - Basaveshwaranagara Ch 1160		2	80.00	0.15	--	24.00		
	Battery Limit - Manjunathnagar Ch 520 to		2	40.00	0.15	--	12.00		
	Towards Majestic		2	100.00	0.15	--	30.00		
	Towards Shivanagar 1st Main Road		2	100.00	0.15	--	30.00		
	Towards Prakashnagar		1	100.00	0.15	--	15.00		
	Towards Shivanagar 8th Main Road		1	100.00	0.15	--	15.00		
	Pedestrian Crossing								
	Stop Line Marking								
	At Junction								
	From CH-1000 to CH-1060 (Junction)		1	6.35	0.20	--	1.27		
			1	7.00	0.20	--	1.40		
			1	9.90	0.20	--	1.98		
			1	8.50	0.20	--	1.70		
	From Ch-740 to Ch 800 (Junction)		2	5.50	0.20	--	2.20		
			1	5.00	0.20	--	1.00		
			1	6.50	0.20	--	1.30		
	Cross Lines 0.50m Wide	54	54	3.00	0.50	--	81.38		
	Direction Arrows		20	5.00	0.90	--	90.00		
							890.23		
						Say	890.50	429.84	382772.52
2.16	KSRRB M800-35 Providing and fixing of road stud 100 x 100 mm, die cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lens reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4: 1973 complete as per specifications.	Nos.							
	(P.No.197&198, I.No.24.41 of PW,P&I WTD SR 2011-12)								
	Along Edge Line		1310	--	--	--	1310.00		
	Lane Marking Line		281	--	--	--	281.00		
							1591.00		
							1591.00	290.52	462217.32

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
2.17	KSRRB M800-15. Road Delinators: Supplying and Installation of delineators (road way indicators, hazard markers, object markers), 80 100 cm high above ground level, painted black and white in 15 cm wide strips, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC - 79 and the drawings complete as per specifications. MORTH Specification No. 805.	No's							
	(P.No.194, I.No.24.19 of PW,P&IWTD SR 2011-12)		24	--	--	--	24		
							24	365.04	8760.96
2.18	KSRRB M800-20. Tubular Steel Railing on Medium Weight Steel Channel (ISMC Series) 100 mm x 50mm: - Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50mm, 1.2 metres high above ground, 2 m centre to centre, complete as per approved drawings as per specifications. MORTH Specification No. 808.	Rmt							
	(P.No.194&195, I.No.24.24 of PW,P&IWTD SR 2011-12)								
	Ch 520 to Ch 1240		2	720.00	--	--	1440.00		
	Towards Majestic		2	100.00	--	--	200.00		
	Towards Shivanagar 1st Main Road		2	100.00	--	--	200.00		
	Towards Prakashnagar		2	100.00	--	--	200.00		
	Towards Shivanagar 8th Main Road		2	100.00	--	--	200.00		
	deduction for Cross Roads								
	Towards Majestic		-1	19.09	--	--	-19.09		
	Towards Shivanagar 1st Main Road		-1	11.31	--	--	-11.31		
	Towards Prakashnagar		-1	11.38	--	--	-11.38		
	Ch: 1240		-1	6.50	--	--	-6.50		
	Ch: 1160		-1	5.00	--	--	-5.00		
	Ch: 1140		-1	5.92	--	--	-5.92		
	Ch: 980		-1	8.00	--	--	-8.00		
	Ch: 940		-1	6.00	--	--	-6.00		
	Ch: 900		-1	5.00	--	--	-5.00		
	Ch: 820		-1	6.00	--	--	-6.00		
							2155.79		
							2156.00	1246.32	2687065.92
2.19	KSRRB M800-2. Retro-Reflectorised Traffic Signs: Providing and fixing of Retro-reflectorised cautionary, mandatory, informative sign as per IRC:67 made of high intensity grade sheeting vide clause 800.1.3, fixed over Aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75mm x 75mm x 6mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45cm x 45cm x 60cm, 60cm below ground level as per approved drawing complete as per specifications. MORTH Specification No. 801.	Each							
	(P.No.191, I.No.24.2 of PW,P&IWTD SR 2011-12)								
	90cm equilateral triangle		8	--	--	--	12	2924.64	35095.68
	60cm circular		13	--	--	--	16	2182.68	34922.88
	60cm x 45cm rectangular		5	--	--	--	5	2503.44	12517.2
	90cm high octagon		8	--	--	--	8	3632.04	29056.32

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
2.20	Providing and fixing Gantry including cutting, fabrication etc., complete as per specification and detailed drawing	Nos							
	(Detail Estimation is enclosed)		3						
	Over Head Gantry						3	1587588.816	4762766.448
									39563735.66
									64.34
								TOTAL	39563800.00

BRUHAT BANGALORE MAHANAGARA PALIKE**Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road****Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction****Name of the Item: Over Head & Cantilever Gantry Detailed Estimation**

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
A.	OVER HEAD GANTRY OF SPAN 30M								
2.20.1	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTDR SR 2011-12)								
	Gantry		3	3.90	3.90	1.80	82.13		
						Say	82.50	45.08	3719.48
2.20.2	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum.							
	(P.No. 222, I.No. 27.24 of PW, P&IWTDR S.R 2011-12)								
	Gantry		3	3.90	3.90	0.10	4.56		
						Say	5.00	3724.92	18624.60
2.20.3	KSRRB M2100-14 Reinforced cement concrete M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008, in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No. 222, I.No. 27.25 of PW, P&IWTDR SR 2011-12)								
	Column footing		2	3.70	3.70	0.60	16.43		
						Say	16.50	4401.00	72616.50
2.20.4	KSRRB 2200-5.9. Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No. 227, I.No. 28.7.9 of PW, P & IWTDR SR 2011-12)								
	Column upto GL		2	2.50	2.50	1.10	13.75		
						Say	14.00	4931.28	9037.92

Manasa Consultants

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	ISA 65x65x6mm @5.8kg/m	2	17	1.00	--	5.80	197.20		
	Horizontal								
	ISA 65x65x6mm @5.8kg/m	2	17	2.00	--	5.80	394.40		
	Diagonal sections								
	Front & Back	2	34	2.24	--	6.80	1035.78		
	Bottom & Top	2	34	2.24	--	6.80	1035.78		
	Covering of truss								
	Ms Plate 5mm thick @ 39.2 kg/Sqm								
	Top	1	34	2.00	--	39.20	2665.60		
	Gusset Plate								
	A-type Vertical Joint								
	3x20X0.3mx0.4mx0.008mx7850kg/cum =		--	--	--	--	452.16		
	B-type Top Horizontal Joint								
	2x7X0.15mx0.15mx0.008mx7850kg/cum =		--	--	--	--	19.78		
	C-type								
	2x3X0.30mx0.30mx0.008mx7850kg/cum =		--	--	--	--	33.91		
	Sides								
	2x17X0.30mx0.30mx0.008mx7850kg/cum =		--	--	--	--	197.17		
							Total	14568.29	
							Qty in MT	14.57	
							Say	15.00	61000.00
									915000.00
2.20.7	KSRB 800-5.2. Providing and Erecting overhead signs with a corrosion resistant 2mm thick aluminium alloy sheet reflectorised with high intensity retro-reflective sheeting of encapsulated lense type with vertical & lateral clearance given in clause 800.2.2 and 800.2.3 and installed as per clause 800.2.7 over a designed support system of aluminium alloy or galvanised steel trestles and trusses of sections and type as per structural design requirements and approved plans complete as per specifications. B.Aluminium Alloy Plate for Over Head Sign MORTH Specification No. 802	Sqm							
	(P.No.192, I.No.24.6 of PW,P&IWTDR SR 2011-12)								
	Covering of truss								
	Top		2	34.00	--	1.00	68.00		
							68.00	5648.40	384091.20
2.20.8	KSRB 15.18.1: Applying red lead ready mix priming coat over new steel or other metal surface including preparing the surface after thoroughly cleaning oil, grease, dirt and other foreign matter, and scoured with wire brushes, fine steel wool, sand papers including cost of materials, labour, complete as per specifications.	Sqm							
	(P.No.127, I.No.15.73 of PW,P&IWTDR SR 2011-12)								
	Gantry		12	2.00	--	8.70	208.80		
	Top Truss		2	30.00	--	1.00	60.00		
			2	30.00	--	2.00	120.00		
	Covering Truss								
	Ms Plate 5mm thick @ 39.2 kg/Sqm		1	30.00	--	2.00	60.00		
							448.80	23.76	10663.49
2.20.9	KSRB 15.18.2: Providing and applying enamel metal paint two coats (Excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications.	Sqm							
	(P.No.127, I.No.15.74 of PW,P&IWTDR SR 2011-12)								
	Quantity same as Primer Coat						68.00	76.68	214.24

[illegible]

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction

Name of the Item: Drain Works & Construction of Compound

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
3.00	Cross Drainages, Longitudinal Drainage & Re-Construction of Compound								
3a)	Culverts Across the Roads								
3.01	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTDR SR 2011-12)								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	7	1	8.00	1.30	1.60	116.48		
	10m Length								
	CH- 1140, 1240, 980, 820	4	1	10.00	1.30	1.60	83.20		
	15m Length								
	CH- 780	1	1	15.00	1.30	1.60	31.20		
	23m Length								
	CH- 1040	1	1	23.00	1.30	1.60	47.84		
							278.72		
						Say	279.00	40.99	11435.09
3.02	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&IWTDR S.R 2011-12)								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	7	1	8.00	1.30	0.10	7.28		
	10m Length								
	CH- 1140, 1240, 980, 820	4	1	10.00	1.30	0.10	5.20		
	15m Length								
	CH- 780	1	1	15.00	1.30	0.10	1.95		
	23m Length								
	CH- 1040	1	1	23.00	1.30	0.10	2.99		
							17.42		
						Say	17.50	3724.92	65186.10
3.03	KSRRB 2200-5.18. De sign mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.228, I.No.28.7.18 of PW, P& IWTDR SR 2011-12)								
	Bottom slab								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	7	1	8.00	1.10	0.25	15.40		
	10m Length								
	CH- 1140, 1240, 980, 820	4	1	10.00	1.10	0.25	11.00		
	15m Length								
	CH- 780	1	1	15.00	1.10	0.25	4.13		
	23m Length								
	CH- 1040	1	1	23.00	1.10	0.25	6.23		
							36.85		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Sidewalls								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	7	2	8.00	0.25	1.00	28.00		
	10m Length								
	CH- 1140, 1240, 980, 820	4	2	10.00	0.25	1.00	20.00		
	15m Length								
	CH- 780	1	2	15.00	0.25	1.00	7.50		
	23m Length								
	CH- 1040	1	2	23.00	0.25	1.00	11.50		
							67.00		
							Net Qty	103.85	
							Say	104.00	5489.64
									570922.56
3.04	KSRRB M2300-7.1. Furnishing and Placing Reinforced / Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D.RCC/PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case-I: Using Concrete Mixer. MORTH Specification No. 1500, 1600 & 1700 - Height upto 5m	Cum							
	P. No 236, INo 29.13.1 of PW, P & IWTDR SR 2011-12)								
	Covering slab								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	7	1	8.00	1.10	0.25	15.40		
	10m Length								
	CH- 1140, 1240, 980, 820	4	1	10.00	1.10	0.25	11.00		
	15m Length								
	CH- 780	1	1	15.00	1.10	0.25	4.13		
	23m Length								
	CH- 1040	1	1	23.00	1.10	0.25	6.33		
							36.85		
							Say	37.00	5920.56
									219060.72
3.05	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTDR SR 2011-12)								
	120kgs per Cum for item no. 3.03+3.04	--	--	--	--	--	16.92		
							Say	17.00	68274.71
									1160670.00
3.06	KSRRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos./ mtr							
	P.No 229, INo 28.10 of PW,P&IWTDR SR 2011-12)								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	12	--	--	--	--	12		
	10m Length								
	CH- 1140, 1240, 980, 820	9	--	--	--	--	9		
	15m Length								
	CH- 780	4	--	--	--	--	4		
	23m Length								
	CH- 1040	6	--	--	--	--	6		
							31		
							Say	31	148.23
									4595.13

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
3.07	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9	Cum							
	(Pg.No. 6, I.No. 2.10 of PW, P & I WTD S.R 2011-12)								
	8m Length								
	CH- 1160, 940, 900, 880, 860, 740, 680	7	2	8.00	0.10	1.50	16.80		
	10m Length								
	CH- 1140, 1240, 980, 820	4	2	10.00	0.10	1.50	12.00		
	15m Length								
	CH- 780	1	2	15.00	0.10	1.50	4.50		
	23m Length								
	CH- 1040	1	2	23.00	0.10	1.50	6.90		
							40.20		
						Say	40.50	97.20	3936.60
3.08	KSRRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder / Stone aggregates / Sand /Kankar / Moorum KSRRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MoRT&H Chapter 1	Cum							
	Conveying up to 20km by Mechanical means.								
	(P. No.141&147 of PW, P & I WTD S.R 2011-12)								
	Qty same as item no 3.01, 3.07						238.50		
						Say	238.50	123.34	29416.59
									2066222.79
3.09	Miscellaneous & Rounding off								777.21
								TOTAL	2066000.00
3b)	Construction of Road Side Drain and Footpath								
3.10	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & I WTD SR 2011-12)								
	From CH-1260 to CH- 520		2	740.00	1480.00				
	Shivnagar 1st Main		2	100.00	200.00				
	Shivnagar 8th Main		2	100.00	200.00				
	Towards Majestic		2	100.00	200.00				
	Towards Prakash Nagar		2	100.00	200.00				
	Cross Roads	11	2	50.00	1100.00				
					3380.00				
	Total length of Drain				3380.00				
	Deduct CD Length		1		134.00				
	Cross Road		1		53.00				
					3193.00				
	Road side drain		1	3193.00	1.10	1.35	4741.61		
	For Catch Drain		228	0.70	0.80	0.80	102.14		
	For Rain water Harvesting	1	64	2.00	0.50	2.05	130.91		
							4974.66		
						Say	4975.00	40.99	203905.35

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
3.11	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&I WTD S.R 2011-12)								
	Road side drain		1	3193.00	1.10	0.15	526.85		
	For Catch Drain		228	0.70	0.80	0.15	19.15		
	For Rain water Harvesting	1	64	2.00	0.50	0.15	9.58		
							555.58		
						Say	556.00	3724.92	2071055.52
3.12	KSRRB 2200-5.9. Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.227, I.No.28.7.9 of PW, P&I WTD SR 2011-12)								
	Bottom slab								
	Road side drain		1	3193.00	0.90	0.15	431.06		
	For Catch Drain		228	0.60	0.70	0.20	19.15		
	For Rain water Harvesting	1	64	2.00	0.40	0.10	5.11		
							455.32		
	Sidewalls								
	Road side drain	2	1	3193.00	0.15	1.00	957.90		
	For Catch Drain	1	228	0.40	0.20	0.30	5.47		
		2	228	0.70	0.20	0.30	19.15		
		1	228	2.00	0.10	0.20	9.12		
	Top Slab								
	Road side drain		1	2808.00	0.90	0.10	252.72		
							1699.68		
						Say	1700.00	4931.28	8383176.00
3.13	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&I WTD SR 2011-12)								
	70kgs per Cum for 3.12		--	--	--	--	119.00		
						Say	119.00	68274.71	8124689.97
3.14	KSSRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos.							
	(P.No.229, I.No.28.10 of PW,P&I WTD S.R 2011-12)								
	Road side drain		320	--	--	--	320.00		
						Say	320.00	148.23	47433.60
3.15	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per the directions of Engineer in-Charge.	Sqm							
	(Data Rate)								
	For Drain		1	385.00	0.90	--	346.50		
	For Tree Surrounding		20	1.50	1.50	--	45.00		
							391.50		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
						Say	391.50	1465.00	573547.60
3.16	Providing and laying reinforced cement concrete pipe NP3 of 300mm dia for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour curing complete as per specifications. Specification No.KSRB 1000, 2300 MoRT&H Specification No. 1000 / 2300	Rmt							
	(Pg.No. 257, I.No. 34.6.1 of PW, P&IWTDR SR 2011-12)								
	For Catch Drain at 10m interval	1	228	1.50	--	--	342.00	1506.60	515257.20
3.17	KSRRB 2100-6: Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers, wherever necessary watering and ramming, including cost of all materials, labour complete as per specifications. MoRT&H Chapter 12	Cum							
	(P.No 221, I.No 27.14 of PW, P & IWTDR SR 2011-12)								
	For Rain water Harvesting	64	1	1.00	1.00	0.05	3.19		
						Say	3.50	1726.92	6044.22
3.18	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials, labour with all lead & lifts etc.,complete as per drawing and technical specification 20mm nominal size	Cum							
	(Data Rate)								
	For Rain water Harvesting	64	1	1.00	1.00	0.075	4.79		
						Say	5.00	1194.00	5970.00
3.19	Providing & Filling of Boulders to required depth in drain trench including cost of all materials, labour with all lead & lifts etc.,complete as per drawing and technical specification 40mm nominal size	Cum							
	(Data Rate)								
	For Rain water Harvesting	64	1	1.00	1.00	0.40	25.54		
						Say	26.00	894.00	23244.00
3.20	KSRB 14.6-1: Providing & laying heavy duty cobble stones 75mm thick interlock pavers,using cement & 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 (Avg 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 specifications. Specification No. KBS	Sqm							
	(P.No.108 of I.No.14.7 in PW,P&IWTDR SR 2011-12)								
	For Footpath	64	1	1.00	1.00	--	63.86		
	Road side drain		1	3193.00	1.80	--	5747.40		
	Between Service Road and Main Carriageway								
	LHS		1	180.00	3.00	--	540.00		
	RHS		1	200.00	3.00	--	600.00		
							6951.26		
						Say	6951.50	776.52	5397978.78
3.21	M.S Grating for Catch Drains	Sqm							
	(Data Rate)		228	0.50	0.40	--	45.60		
						Say	46.00	8765.00	403190.00
3.22	KSRB 2.3: Filling available Excavated Earth (excluding rock) in sides of foundations upto plinth 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. Specification No.KBS 2.9	Cum							

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount Rs.
	(P.No.6, I.No.2.10 of PW, P&I WTD S.R 2011-12)								
	For Road Side Drain		1	3193.00	0.10	1.25	399.13		
	For Catch Drain		3	228	0.70	0.70	33.52		
							432.64		
3.23	KSRRB M100-4.1. Cost of Haulage including Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kanker / Moorum.Placing tipper at loading point, loading with front end loader,dumping , turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH-100/ Chapter 1 Case-I : Surface Road	Cum				Say	433.00	97.20	42087.1
	(P.No.141&147, of PW, P&I WTD SR 2011-12)								
	Qty same as item no 3.10, 3.22						4542.00	123.34	560210.2
3.24	Miscellaneous & Rounding off								26357790.0
									206.3
								TOTAL	26357996.41
3c)	Re-Construction of Compound and Retaining wall Along Service Road								
3.25	KSRRB 2 - 2.1: Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m.and above in width, in ordinary soil not exceeding 1.5m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. Specification No. KBS 2.1(a) / 2.3.5	Cum							
	(P.No.5, I.No.2.3 of PW, P & I WTD S.R 2011-12)								
	For Compound		1	50.00	0.90	1.05	47.25		
	Retaining wall		2	100.00	0.90	1.05	189.00		
							236.25		
						Say	236.50	144.72	34226.28
3.26	KSRRB 4-1.3: Providing and laying in position plain cement concrete of mix M7.5 with OPC cement @180kgs, with 40mm and down size graded granite metal coarse aggregates 0.85cum and fine aggregates @0.57cum machine mixed, concrete laid in layers not exceeding 15 cms.thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2	Cum							
	(P.No.12, I.No.4.3 of PW, P&I WTD S.R 2011-12)								
	For Compound bed		1	50.00	0.90	0.15	6.75		
	Retaining wall		2	100.00	0.90	0.15	27.00		
							33.75		
						Say	34.00	3799.44	129180.96
3.27	KSRRB 5.2-3: Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. Specification No. KBS 5.1.13.	Cum							
	(P.No.25, I.No.5.6 of PW, P&I WTD S.R 2011-12)								
	For Compound								
	1st Footing		1	50.00	0.75	0.225	8.44		
	2nd footing		1	50.00	0.60	0.45	13.50		
	3rd footing		1	50.00	0.45	0.225	5.06		
	For Retaining Wall								
	1st Footing		2	100.00	0.75	0.225	33.75		
	2nd footing		2	100.00	0.60	0.45	54.00		
							114.75		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
						Say	115.00	2773.44	318945.60
3.28	KSRB 5.3-3: Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. Specification No. KBS 5.1.13.	Cum							
	(P.No.26, I.No.5.9 of PW, P&I WTD S.R 2011-12)								
	For Compound		1	50.00	0.45	0.45	10.13		
	For Retaining Wall		2	100.00	0.45	1.00	90.00		
							100.13		
						Say	100.50	3246.48	326271.24
3.29	KSRB 4.1.6: Providing and laying in position plain cement concrete of mix M15 with cement @240kgs. with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms.thick well compacted in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No.KBS 4.1.4.2	Cum							
	(P.No.12, I.No.4.6 of PW, P&I WTD S.R 2011-12)								
	For Plinth at Basement Lvl		1	50.00	0.45	0.10	2.25		
	At Top Coping		1	50.00	0.20	0.10	1.00		
	For Plinth at Basement Lvl		2	100.00	0.45	0.10	9.00		
	At Top Coping		2	100.00	0.45	0.10	9.00		
							21.25		
						Say	21.50	4275.72	91927.98
3.30	KSRB 5.14: Providing and constructing precast concrete solid blocks with compressive strength not less than 35 Kg/sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x20x20cms conforming to I.S: 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications.	Sqm							
	(P.No. 27, I.No. 5.27 of PW, P&I WTD SR 2011-12)								
	For Compound		1	50.00	--	2.50	125.00		
						Say	125.00	704.16	88020.00
3.31	KSRB 15.1-1: Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.	Sqm							
	(P.No. 119, I.No. 15.1 of PW, P&I WTD S.R 2011-12)								
	For Basement		1	50.00	0.45	--	22.50		
						Say	22.50	75.06	1688.85
3.32	KSRB 15.3.9: Providing 18mm thick cement plaster in single coat with cement mortar 1:6, 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.	Sqm							
	(P.No. 120, I.No.15.1.7 of PW, P& I WTD SR 2011-12)								
	For Compound		1	50.00	--	5.25	262.50		
						Say	262.50	149.04	39123.00

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
3.33	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9	Cum.							
	(Pg.No. 6, I.No. 2.10 of PW, P & I WTD S.R 2011-12)								
	For foundation								
	Same as Qty = Sl.No. 3.25-(3.26+3.27)		--	--	--	--	87.50		
							Say 87.50	97.20	8505.00
3.34	KSRB 15-16.1: Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. (with primer)	Sqm							
	(P.No.124, I.No.15.53.2 of PW, P & I WTD S.R 2011-12)								
	For Compound		1	50.00	--	4.25	212.50		
							Say 212.50	63.60	13515.00
3.35	KSRRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder / Stone aggregates / Sand /Kankar / Moorum KSRRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MoRT&H Chapter 1	Cum							
	Conveying up to 20km by Mechanical means.								
	(Page No.141&147 of PW, P & I WTD S.R 2011-12)								
	Qty same as item no 3.25-3.33		--	--	--	--	149.00	123.34	18377.66
3.36	Miscellaneous & Rounding off								1069781.57
									218.43
								TOTAL	1070000.00

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction

Name of the Item: Construction of Covered Portion of Underpass

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
4.01	KSRRB 300-44 Scarifying top bituminous surface or surface dressing or premix carpet including picking up scarified materials, stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH Chapter 3	Sqm							
	(P.No.155, I.No.19.50 of PW, P&I WTD SR 2011-12)								
	For box portion								
	Shivanagar 1st Main Road Junction		1	51.30	20.90	--	1072.17		
	Shivanagar 8th Main Road Junction		1	56.30	20.90	--	1176.67		
							2248.84		
						Say	2249.00	19.33	43477.67
4.02	KSRRB 300-45: Scarifying stone metal crust 50mm to 100mm thick with pick axes along with premix carpet / surface dressing and stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH Chapter 3	Sqm							
	(P.No.155, I.No.19.51 of PW, P&I WTD SR 2011-12)								
	For box portion								
	Shivanagar 1st Main Road Junction		1	51.30	20.90	--	1072.17		
	Shivanagar 8th Main Road Junction		1	56.30	20.90	--	1176.67		
							2248.84		
						Say	2249.00	38.66	86955.34
4.03	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & I WTD SR 2011-12)								
	For box portion								
	Shivanagar 1st Main Road Junction		1	51.30	20.90	3.00	3218.65		
	Shivanagar 8th Main Road Junction		1	56.30	20.90	3.00	3532.36		
	For Approach Slab								
	Shivanagar 1st Main Road Junction		2	50.00	3.50	0.50	175.00		
	Shivanagar 8th Main Road Junction		2	55.00	3.50	0.50	192.50		
							7118.52		
						Say	7119.00	40.99	291779.33
4.04	KSRRB M2100-2.2 Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth 3m to 6m. MORTH Specification No.304 (Add 10% of Dewatering Charges)								

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	(P.No. 220, I.No.27.5 of PW, P&IWTDR SR 2011-12)								
	For box portion								
	Shivanagar 1st Main Road Junction		1	51.30	20.90	3.00	3218.65		
	Shivanagar 8th Main Road Junction		1	56.30	20.90	3.00	3532.36		
							6751.02		
	Consider 60% of the Qty		--	--	--	--	4050.61		
						Say	4051.00	46.82	189659.72
4.05	KSRRB M2100-3.2: Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. II. Ordinary rock (not requiring blasting) B. Mechanical Means Depth upto 3m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No.220, I.No.27.8 of PW, P&IWTDR SR 2011-12)								
	For box portion								
	Shivanagar 1st Main Road Junction		1	51.30	20.90	1.45	1556.79		
	Shivanagar 8th Main Road Junction		1	56.30	20.90	1.45	1708.52		
							3265.32		
	Consider 95% of the Qty		--	--	--	--	3102.05		
	Consider 40% of the Qty From Item No 4.04		--	--	--	--	2700.41		
						Total Qty	5802.46		
						Say	5802.50	51.84	300801.60
4.06	KSRRB M2100-4.2: Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. III Hard rock -(blasting prohibited) A. Mechanical means MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No.221, I.No.27.10 of PW, P&IWTDR SR 2011-12)								
	Consider 5% of the Item No. 4.05		--	--	--	--	163.27		
						Say	163.50	324.00	52974.00
4.07	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.221, I.No.27.24 of PW,P&IWTDR S.R 2011-12)								
	For Bed concrete below box segment								
	Shivanagar 1st Main Road Junction		1	50.30	19.40	0.15	146.37		
	Shivanagar 8th Main Road Junction		1	55.30	19.40	0.15	160.92		
	For Approach Slab								
	Shivanagar 1st Main Road Junction		2	50.00	3.50	0.15	52.50		
	Shivanagar 8th Main Road Junction		2	55.00	3.50	0.15	57.75		
	Above box for footpath								
	Shivanagar 1st Main Road Junction		2	18.50	1.50	0.25	13.88		
	Shivanagar 8th Main Road Junction		2	18.50	1.50	0.25	13.88		
	Median Filling inside Box								
	Shivanagar 1st Main Road Junction		2	50.00	0.30	0.45	13.50		
	Shivanagar 8th Main Road Junction		2	55.00	0.30	0.45	14.85		
							473.65		

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
						Say	474.00	3724.92	1765612.08
4.08	KSRRB M2100-20.2: Reinforced Cement Concrete in Open Foundation with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case II: with Batching Plant, Transit Mixer and Concrete Pump MoRT&H Specification No. 1500, 1700 & 2100	Cum							
	(P.No.224, I.No.27.37 of PW, P&I WTD SR 2011-12)					Avg			
	Bottom Slab								
	Shivanagar 1st Main Road Junction		1	50.00	19.10	0.60 + 0.75	644.63		
						2			
	Shivanagar 8th Main Road Junction		1	55.00	19.10	0.60 + 0.75	709.09		
						2			
						Net Qty	1353.71		
						Say	1354.00	4918.32	6659405.28
4.09	KSRRB M600-1: Construction of dry lean cement concrete mix M5 with OPC cement @ 160kgs, with 25mm and down size graded granite metal coarse aggregates at 0.86cum and fine aggregates @ 0.58cum Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10Mpa at 7days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No.601	Cum							
	(P.No.185, I.No.22.1 of PW, P&I WTD SR 2011-12) :					Avg			
	Above Bottom Slab								
	Shivanagar 1st Main Road Junction		2	50.00	8.00	0.375 + 0.50	350.00		
						2			
	Shivanagar 8th Main Road Junction		2	55.00	8.00	0.375 + 0.50	385.00		
						2			
						Net Qty	735.00		
						Say	735.00	2757.24	2026571.40

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
4.10	KSRRB M600-2: Cement Concrete Pavement:- Construction of unreinforced, dowel jointed, plain cement concrete pavement over a prepared sub-base with OPC cement design mix M40 at 360kg per cum, with 25mm and down size graded granite metal coarse aggregate at 0.69cum and fine aggregates @ 0.46cum with superplasticiser at 3lts conforming to IS9103-1999 reaffirmed-2008, coarse and fine aggregates conforming to IS: 383, maximum size of coarse aggregate not exceeding 25mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. MORTH Specification No.602								
	(P.No.185, I.No.22.2 of PW, P&I WTD SR 2011-12)								
	Above Dry Lean Concrete								
	Shivanagar 1st Main Road Junction		2	50.00	7.50	0.20	150.00		
	Shivanagar 8th Main Road Junction		2	55.00	7.50	0.20	165.00		
							315.00		
						Say	315.00	5083.56	1601321.40
4.11	KSRRB 2200-5.18. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.228, I.No.28.7.18 of PW, P&I WTD SR 2011-12)				Avg				
	Box Portion side wall								
	Shivanagar 1st Main Road Junction		2	50.00	0.75 + 0.5	5.00	312.63		
					2				
	Shivanagar 8th Main Road Junction		2	55.00	0.75 + 0.45	5.00	330.13		
					2				
	Box Portion central wall								
	Shivanagar 1st Main Road Junction		1	50.00	0.40	5.00	100.04		
	Shivanagar 8th Main Road Junction		1	55.00	0.40	5.00	110.04		
	Drainage								
	Shivanagar 1st Main Road Junction		2	50.00	0.20	0.60	12.00		
	Shivanagar 8th Main Road Junction		2	55.00	0.20	0.60	13.20		
							878.04		
						Say	878.50	5489.64	1822648.74
4.12	KSRRB 2200-5.19. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008 i) For height, upto 10m	Cum							
	(P.No.228, I.No.28.7.19 of PW, P&I WTD SR 2011-12)				Avg				
	Box Portion side wall								
	Shivanagar 1st Main Road Junction		2	50.00	0.75 + 0.5	1.25	75.12		
					2				
	Shivanagar 8th Main Road Junction		2	55.00	0.75 + 0.45	1.25	82.63		
					2				
	Box Portion central wall								
	Shivanagar 1st Main Road Junction		1	50.00	0.40	1.25	25.04		
	Shivanagar 8th Main Road Junction		1	55.00	0.40	1.25	27.54		
							210.34		
						Say	210.50	5612.76	181485.98

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
4.13	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	T							
	(P.No.229, I.No.28.8 of PW, P&I WTD SR 2011-12)								
	Consider 35 kg/cum for SL.No.4.10								
	For CC Pavement		--	--	--	--	11.03		
	Consider 130kg/cum for 4.08.4.11,4.12								
	For Bottom Slab, Side & Central Wall		--	--	--	--	317.59		
							328.62		
						Say	329.00	68274.71	22462378.14
4.14	KSRRB M2300-8.1: For Solid Slab: Furnishing and Placing Reinforced /Prestressed Cement Concrete in super - structure as per drawing and Technical Specification complete as per specifications. D. RCC/PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008, Case - II: Using Batching Plant, Transit Mixer & Concrete Pump. MORTH Specification No. 1500, 1600 & 1700 Height 5m to 10m	Cum							
	(P.No.237, I.No.29.16.2 of PW, P&I WTD SR 2011-12)								
	Top Slab								
	Shivanagar 1st Main Road Junction		1	50.00	18.50	0.45	416.25		
	Shivanagar 8th Main Road Junction		1	55.00	18.50	0.45	457.88		
	Haunch Portion								
	Shivanagar 1st Main Road Junction		2	50.00	0.30	0.60	18.00		
			2	50.00	0.30	0.30	9.00		
	Shivanagar 8th Main Road Junction		2	55.00	0.30	0.60	19.80		
			2	55.00	0.30	0.30	9.90		
	Carbel Portion								
	Shivanagar 1st Main Road Junction		2	50.00	0.50	0.50	25.00		
	Shivanagar 8th Main Road Junction		2	55.00	0.50	0.50	27.50		
	Crash barrier								
	Shivanagar 1st Main Road Junction		2	18.50	0.15	1.18	6.52		
			2	18.50	0.94	0.23	7.80		
	Shivanagar 8th Main Road Junction		2	18.50	0.15	1.18	6.52		
			2	18.50	0.94	0.23	7.80		
							1011.98		
						Say	1012.00	5824.44	5894333.28
4.15	KSRRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600	T							
	(P.No.241, I.No.29.29 of PW, P&I WTD S.R 2011-12)								
	Consider 130kg/cum for SL.No. 4.14		--	--	--	--	131.56		
						Say	132.00	69013.85	9109827.78
4.16	KSRRB M2700-7: Reinforced Cement Concrete M-30 approach slab including reinforcement and form work complete as per drawing and Technical specification complete as per specifications. MORTH Specification No. 1500, 1600, 1700 & 2704	Cum							
	(P.No.250, I.No.32.7 of PW, P&I WTD SR 2011-12)								
	For Approach Slab								
	Shivanagar 1st Main Road Junction		2	50.00	3.50	0.35	122.50		

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Shivanagar 8th Main Road Junction		2	55.00	3.50	0.35	134.75		
							257.25		
						Say	257.50	8009.28	2062389.60
4.17	KSRB 2.4: Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting earth deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications.	Cum							
	(P.No.6, I.No.2.11 of PW,P&I WTD SR 2011-12)								
	Both sides of the box portion				Avg				
	Shivanagar 1st Main Road Junction		2	51.30	1.05	1.50	161.60		
	Shivanagar 8th Main Road Junction		2	56.30	1.05	1.50	177.35		
							338.94		
						Say	339.00	58.32	19770.48
4.18	KSSRB M2200-9. Providing and laying Filter Media with granular materials / stone crushed aggregates satisfying the requirements laid down in clause 2500.4.2.2. of MORTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification complete as per specifications MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.13 of PW,P&I WTD S.R 2011-12)								
	Both sides of the box portion								
	Shivanagar 1st Main Road Junction		2	51.30	0.60	5.31	327.16		
	Shivanagar 8th Main Road Junction		2	56.30	0.60	5.31	359.05		
							686.21		
						Say	686.50	665.28	456714.72
4.19	KSSRB M2200 - 8.1. Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification complete as per specifications. A. Granular Material MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.11 of PW,P&I WTD S.R 2011-12)								
	Both sides of the box portion								
	Shivanagar 1st Main Road Junction		2	51.30	0.60	5.31	327.16		
	Shivanagar 8th Main Road Junction		2	56.30	0.60	5.31	359.05		
							686.21		
						Say	686.50	275.40	189062.10
4.20	KSSRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos./mtr							
	P.No. 229, I.No. 28.10 of PW,P&I WTD S.R 2011-12)								
	Box Portion side wall								
	Shivanagar 1st Main Road Junction		150	--	--	--	150.00		
	Shivanagar 8th Main Road Junction		165	--	--	--	165.00		
							315.00		
						Say	315.00	148.23	46692.45

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
4.21	KSRRB M500-10. Tack Coat: Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom complete as per specifications. MORTH specification No.503	Sqm							
	(P.No. 172 I.No.21.10.1 of PW,P&IWTDS.R 2011-12)								
	Above top & approach slab								
	Shivanagar 1st Main Road Junction		1	25.50	50.00	--	1275.00		
	Shivanagar 8th Main Road Junction		1	25.50	55.00	--	1402.50		
							2677.50		
						Say	2677.50	11.08	29668.84
4.22	KSRRB M2700-1. Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005 cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces is not less than 100deg. C, protruding 1 mm to 4 mm over mastic surface, complete as per clause 5100.5 complete as per specifications. MORTH Specification No. 515 & 2702	Sqm							
	(P.No.250, I.No.32.1 of PW,P&IWTDS.R 2011-12)								
	Above top & approach slab								
	Shivanagar 1st Main Road Junction		1	25.50	50.00	--	1275.00		
	Shivanagar 8th Main Road Junction		1	25.50	55.00	--	1402.50		
							2677.50		
						Say	2677.50	238.68	639065.70
4.23	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MoRT&H/ Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWTDS.R of 2011-12)								
	Above top & approach slab								
	Shivanagar 1st Main Road Junction		1	25.50	50.00	--	1275.00		
	Shivanagar 8th Main Road Junction		1	25.50	55.00	--	1402.50		
							2677.50		
						Say	2677.50	16.46	44069.51

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Ri
4.24	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100 - 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum						
	(P.No.175 of I.No.21.22.4 in PW,P&I WTD S.R 2011-12)							
	Above top & approach slab							
	Shivanagar 1st Main Road Junction		1	25.50	50.00	0.04	51.00	
	Shivanagar 8th Main Road Junction		1	25.50	55.00	0.04	56.10	
							107.10	
						Say	107.50	11208.63 1204927.60
4.25	Anti carbonate painting with approved colour as per specifications including cost of materials, labour etc., complete as per specifications and as directed by the Engineer in Charge.	Sqm						
	(Market rate)							
	Shivanagar 1st Main Road Junction							
	Sides		4	50.00	--	5.50	1100.00	
	Top Slab		2	18.50	--	0.45	16.65	
	Ceiling		2	50.00	8.60	--	860.00	
	Crash barrier		2	18.50	--	2.33	86.03	
	Shivanagar 8th Main Road Junction							
	Sides		4	55.00	--	5.50	1210.00	
	Top Slab		2	18.50	--	0.45	16.65	
	Ceiling		2	55.00	8.60	--	946.00	
	Crash barrier		2	18.50	--	2.33	86.03	
							4321.35	
						Say	4321.50	200.00 864300.00
4.26	KSRRB 13-9.1: Providing and fixing to wall, ceiling and floor, high density polyethylene pipes 6.00 kgf/sq.cm working pressure 160mm outside diameter with special Flange, compression type fittings, wall clips, making good the wall, ceiling and floor including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No. KBS 13.2.15.2/13.9	m						
	(Market Rate)							
	Shivanagar 1st Main Road Junction		6	18.50	--	--	111.00	
	Shivanagar 8th Main Road Junction		6	18.50	--	--	111.00	
							222.00	
						Say	222.00	1480.00 328560.00
4.27	KSRRM M2700-4. Providing fitting and fixing mild steel railing complete as per drawing and technical Specification. Complete as per MORTH Specification No. 2703.2, 1900	m						
	(P.No. 250, I.No. 32.4 of PW, P & I WTD S.R 2011-12)							
	Over Box portion							
	Shivanagar 1st Main Road Junction		2	18.50	--	--	37.00	
	Shivanagar 8th Main Road Junction		2	18.50	--	--	37.00	
							74.00	

Sl. No.	Description of Work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Center Lane Marking line								
	Shivanagar 1st Main Road Junction		2	50.00	0.15	--	15.00		
	Shivanagar 8th Main Road Junction		2	55.00	0.15	--	16.50		
	Edge line								
	Shivanagar 1st Main Road Junction		4	50.00	0.15	--	30.00		
	Shivanagar 8th Main Road Junction		4	55.00	0.15	--	33.00		
							94.50		
						Say	95.00	429.84	40834.80
4.33	KSRRB M800-35 Providing and fixing of road stud 100 x 100 mm, die cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphalatic surface by drilling hole 30 mm upto a depth of 60mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4: 1973 complete as per specifications.	Nos.							
	(P.No.197, I.No.24.41 of PW,P&IWTD SR 2011-12)								
	Center Lane Marking line								
	Shivanagar 1st Main Road Junction		33	--	--	--	33.00		
	Shivanagar 8th Main Road Junction		37	--	--	--	37.00		
	Edge line								
	Shivanagar 1st Main Road Junction		67	--	--	--	67.00		
	Shivanagar 8th Main Road Junction		73	--	--	--	73.00		
							210.00		
							210.00	290.52	61009.20
4.34	KSRRB M100-4.2. Haulage of materials by tipper including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I: Surface Road	Cum							
	(P. No.141&147 of PW, P&IWTD S.R 2011-12)								
	Qty = Sl.No. 4.01 x 0.075		--	--	--	--	168.68		
	Qty = Sl.No. 4.02 x 0.075		--	--	--	--	168.68		
	Qty = Sl.No. 4.03 + 4.04 + 4.05 + 4.17		--	--	--	--	16796.83		
							17134.18		
						Say	17134.50	123.34	2113369.23
								65155098.55	
4.35	Miscellaneous & Rounding off								1.45
									65155100.00

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction

Name of the Item: Construction of Retaining Wall

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
5.01	KSRRB 300-44 Scarifying top bituminous surface or surface dressing or premix carpet including picking up scarified materials, stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH Chapter 3	Sqm							
	(P.No.155, I.No 19.50 of PW, P&IWD SR 2011-12)								
	For Retaining Wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	1.58	--	47.82		
	From 15.18 to 33.88		2	18.70	2.30	--	86.02		
	From 33.88 to 46.47		2	12.59	2.90	--	73.02		
	From 46.47 to 61.53		2	15.06	3.70	--	111.44		
	From 61.53 to 75.83		2	14.30	4.20	--	120.12		
	From 75.83 to 100.62		2	24.79	5.80	--	287.56		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	3.80	--	362.73		
	From 31.27 to 58.62		2	27.35	5.80	--	317.26		
	From 58.62 to 94.8		2	36.18	5.80	--	419.69		
	From 94.8 to 139.33		2	44.53	5.80	--	516.55		
	From 139.33 to 174.39		2	35.06	5.80	--	406.70		
	From 174.39 to 208.05		2	33.66	5.80	--	390.46		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	1.58	--	245.20		
	From 17.84 to 33.65		2	15.81	2.30	--	72.73		
	From 33.65 to 65.72		2	32.07	2.90	--	186.01		
	From 65.72 to 85.6		2	19.88	3.70	--	147.11		
	From 85.6 to 114.06		2	28.46	4.75	--	270.37		
	From 114.06 to 138.56		2	24.50	5.80	--	284.20		
	From 138.56 to 163.84		2	25.28	5.80	--	293.25		
	From 163.84 to 186.41		2	22.57	5.80	--	261.81		
							4900.04		
						Say	4900.50	19.33	94736.47
5.02	KSRRB 300-45: Scarifying stone metal crust 50mm to 100mm thick with pick axes along with premix carpet / surface dressing and stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH Chapter 3	Sqm							
	(P.No.155, I.No.19.51 of PW, P&IWD SR 2011-12)								
	Qty same as Item No.1		--	--	--	--	4900.50	38.66	189472.93
5.03	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWD SR 2011-12)								
	For Retaining wall								

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	1.58	1.21	57.86		
	From 15.18 to 33.88		2	18.70	2.30	2.59	222.36		
	From 33.88 to 46.47		2	12.59	2.90	3.00	219.07		
	From 46.47 to 61.53		2	15.06	3.70	3.00	334.33		
	From 61.53 to 75.83		2	14.30	4.20	3.00	360.36		
	From 75.83 to 100.62		2	24.79	5.80	3.00	862.69		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	5.80	3.00	1088.20		
	From 31.27 to 58.62		2	27.35	5.80	3.00	950.19		
	From 58.62 to 94.8		2	36.18	5.80	3.00	1259.06		
	From 94.8 to 139.33		2	44.53	5.80	3.00	1547.06		
	From 139.33 to 174.39		2	35.06	5.80	3.00	1218.05		
	From 174.39 to 208.05		2	33.66	5.80	3.00	1171.37		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	1.58	1.25	306.50		
	From 17.84 to 33.65		2	15.81	2.30	2.25	163.63		
	From 33.65 to 65.72		2	32.07	2.90	3.00	557.09		
	From 65.72 to 85.6		2	19.88	3.70	3.00	440.60		
	From 85.6 to 114.06		2	28.46	4.75	3.00	809.76		
	From 114.06 to 138.56		2	24.50	5.80	3.00	852.60		
	From 138.56 to 163.84		2	25.28	5.80	3.00	878.28		
	From 163.84 to 186.41		2	22.57	5.80	3.00	784.13		
							14083.19		
						Total Qty	14083.50	40.99	577226.33
5.04	KSRRB M2100-2.2 Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth 3m to 6m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No. 220, I.No.27.5 of PW, P&I WTD SR 2011-12)								
	For Retaining wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 33.88 to 46.47		2	12.59	2.90	0.67	48.92		
	From 46.47 to 61.53		2	15.06	3.70	1.79	199.48		
	From 61.53 to 75.83		2	14.30	4.20	2.83	339.94		
	From 75.83 to 100.62		2	24.79	5.80	3.00	862.69		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	5.80	3.00	1088.20		
	From 31.27 to 58.62		2	27.35	5.80	3.00	950.19		
	From 58.62 to 94.8		2	36.18	5.80	3.00	1259.06		
	From 94.8 to 139.33		2	44.53	5.80	3.00	1547.06		
	From 139.33 to 174.39		2	35.06	5.80	3.00	1218.05		
	From 174.39 to 208.05		2	33.66	5.80	3.00	1171.37		
	Retaining wall towards Manjunathnagar Road								
	From 33.65 to 65.72		2	32.07	2.90	0.96	177.64		
	From 65.72 to 85.6		2	19.88	3.70	1.84	269.95		
	From 85.6 to 114.06		2	28.46	4.75	3.00	809.76		
	From 114.06 to 138.56		2	24.50	5.80	3.00	852.60		
	From 138.56 to 163.84		2	25.28	5.80	3.00	878.28		
	From 163.84 to 186.41		2	22.57	5.80	3.00	784.13		
							12457.33		
	Consider 60% of the Qty						7474.40		
						Say	7474.50	46.82	349941.14

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
5.05	KSRRB M2100-3.2: Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. II. Ordinary rock (not requiring blasting) B.Mechanical Means Depth upto 3m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No.220, I.No.27.8 of PW, P&IWTDR SR 2011-12)								
	For Retaining wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 75.83 to 100.62		2	24.79	5.80	0.90	258.81		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	5.80	1.60	580.37		
	From 31.27 to 58.62		2	27.35	5.80	1.65	521.89		
	From 58.62 to 94.8		2	36.18	5.80	1.56	654.71		
	From 94.8 to 139.33		2	44.53	5.80	1.44	741.25		
	From 139.33 to 174.39		2	35.06	5.80	1.07	433.13		
	From 174.39 to 208.05		2	33.66	5.80	1.19	464.64		
	Retaining wall towards Manjunathnagar Road								
	From 85.6 to 114.06		2	28.46	4.75	0.14	36.50		
	From 114.06 to 138.56		2	24.50	5.80	0.97	275.67		
	From 138.56 to 163.84		2	25.28	5.80	1.69	494.12		
	From 163.84 to 186.41		2	22.57	5.80	1.66	433.30		
							4894.40		
	Consider 95% of the Qty		--	--	--	--	4649.68		
	Consider 40% of the Qty for Sl.No.5.04		--	--	--	--	4982.93		
						Total	9632.61		
						Say	9633.00	51.84	499374.72
5.06	KSRRB M2100-4.2: Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. III Hard rock -(blasting prohibited) A.Mechanical means MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No.221, I.No.27.10 of PW, P&IWTDR SR 2011-12)								
	Consider 5% of Quantity Sl.No.5		--	--	--	--	244.72		
						Say	245.00	324.00	79380.00
5.07	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW, P&IWTDR S.R 2011-12)								
	For Retaining wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	1.58	0.15	7.17		
	From 15.18 to 33.88		2	18.70	2.30	0.15	12.90		
	From 33.88 to 46.47		2	12.59	2.90	0.15	10.95		
	From 46.47 to 61.53		2	15.06	3.70	0.15	16.72		
	From 61.53 to 75.83		2	14.30	4.20	0.15	18.02		
	From 75.83 to 100.62		2	24.79	5.80	0.15	43.13		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	5.80	0.15	54.41		
	From 31.27 to 58.62		2	27.35	5.80	0.15	47.59		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From 58.62 to 94.8		2	36.18	5.80	0.15	62.95		
	From 94.8 to 139.33		2	44.53	5.80	0.15	77.48		
	From 139.33 to 174.39		2	35.06	5.80	0.15	61.00		
	From 174.39 to 208.05		2	33.66	5.80	0.15	58.57		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	1.58	0.15	36.78		
	From 17.84 to 33.65		2	15.81	2.30	0.15	10.91		
	From 33.65 to 65.72		2	32.07	2.90	0.15	27.90		
	From 65.72 to 85.6		2	19.88	3.70	0.15	22.07		
	From 85.6 to 114.06		2	28.46	4.75	0.15	40.56		
	From 114.06 to 138.56		2	24.50	5.80	0.15	42.63		
	From 138.56 to 163.84		2	25.28	5.80	0.15	43.99		
	From 163.84 to 186.41		2	22.57	5.80	0.15	39.27		
							735.01		
						Say	735.50	3724.92	2739678.66
5.08	KSRRB M2100-20.2: Reinforced Cement Concrete in Open Foundation with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008. Case II: with Batching Plant, Transit Mixer and Concrete Pump MoRT&H Specification No. 1500, 1700 & 2100	Cum							
	(P.No.224, I.No.27.37 of PW, P& I WTD SR 2011-12)								
	Retaining wall substructure								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	0.88	0.20	5.31		
	From 15.18 to 33.88		2	18.70	1.60	0.20	11.97		
			2	18.70	0.95	0.10	3.55		
	From 33.88 to 46.47		2	12.59	2.20	0.20	11.08		
			2	12.59	1.33	0.25	8.34		
	From 46.47 to 61.53		2	15.06	3.00	0.20	18.07		
			2	15.06	1.78	0.35	18.71		
	From 61.53 to 75.83		2	14.30	3.50	0.20	20.02		
			2	14.30	2.05	0.40	23.45		
	From 75.83 to 100.62		2	24.79	5.10	0.30	75.86		
			2	24.79	2.98	0.55	81.13		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	5.10	0.30	95.69		
			2	31.27	2.98	0.55	102.33		
	From 31.27 to 58.62		2	27.35	5.10	0.30	83.69		
			2	27.35	2.98	0.55	89.50		
	From 58.62 to 94.8		2	36.18	5.10	0.30	110.71		
			2	36.18	2.98	0.55	118.40		
	From 94.8 to 139.33		2	44.53	5.10	0.30	136.26		
			2	44.53	2.98	0.55	145.72		
	From 139.33 to 174.39		2	35.06	5.10	0.30	107.28		
			2	35.06	2.98	0.55	114.73		
	From 174.39 to 208.05		2	33.66	5.10	0.30	103.00		
			2	33.66	2.98	0.55	110.15		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	0.88	0.20	27.24		
	From 17.84 to 33.65		2	15.81	1.60	0.20	10.12		
			2	15.81	0.95	0.10	3.00		
	From 33.65 to 65.72		2	32.07	2.20	0.20	28.22		
			2	32.07	1.33	0.25	21.25		
	From 65.72 to 85.6		2	19.88	3.00	0.20	23.86		
			2	19.88	1.78	0.35	24.70		
	From 85.6 to 114.06		2	28.46	4.05	0.30	69.16		
			2	28.46	2.40	0.45	61.47		
	From 114.06 to 138.56		2	24.50	5.10	0.30	74.97		
			2	24.50	2.98	0.55	80.18		
	From 138.56 to 163.84		2	25.28	5.10	0.30	77.36		
			2	25.28	2.98	0.55	82.73		
	From 163.84 to 186.41		2	22.57	5.10	0.30	69.06		
			2	22.57	2.98	0.55	73.86		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
							2322.15		
						Say	2322.50	4918.32	11422798.20
5.09	KSRRB 2200-5.18. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.228, I.No.28.7.18 of PW, P& I WTD SR 2011-12)								
	Retaining wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	0.20	0.91	5.53		
	From 15.18 to 33.88		2	18.70	0.25	2.19	20.43		
	From 33.88 to 46.47		2	12.59	0.33	3.12	25.53		
	From 46.47 to 61.53		2	15.06	0.38	4.14	46.76		
	From 61.53 to 75.83		2	14.30	0.40	5.00	57.20		
	From 75.83 to 100.62		2	24.79	0.58	5.00	142.54		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	0.58	5.00	179.80		
	From 31.27 to 58.62		2	27.35	0.58	5.00	157.11		
	From 58.62 to 94.8		2	36.18	0.58	5.00	208.04		
	From 94.8 to 139.33		2	44.53	0.58	5.00	255.79		
	From 139.33 to 174.39		2	35.06	0.58	5.00	201.39		
	From 174.39 to 208.05		2	33.66	0.58	5.00	193.55		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	0.20	0.95	29.58		
	From 17.84 to 33.65		2	15.81	0.25	1.85	14.62		
	From 33.65 to 65.72		2	32.07	0.33	3.41	70.98		
	From 65.72 to 85.6		2	19.88	0.38	4.19	62.40		
	From 85.6 to 114.06		2	28.46	0.53	5.00	149.27		
	From 114.06 to 138.56		2	24.50	0.58	5.00	140.88		
	From 138.56 to 163.84		2	25.28	0.58	5.00	145.21		
	From 163.84 to 186.41		2	22.57	0.58	5.00	129.65		
	Drain side wall on both sides of Retaining wall								
	Towards Basaveshwara Nagar		2	100.62	0.20	0.60	24.15		
	B/w Shivanagar 1st & 8th Main		2	208.05	0.20	0.60	49.93		
	Towards Manjunathnagar Road		2	186.41	0.20	0.60	44.74		
							2355.07		
						Say	2355.50	5489.64	12930847.02
5.10	KSRRB 2200-5.19. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) For height, upto 10m	Cum							
	(P.No.228, I.No.28.7.19 of PW, P& I WTD SR 2011-12)								
	Retaining wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 61.53 to 75.83		2	14.30	0.40	0.13	1.49		
	From 75.83 to 100.62		2	24.79	0.58	0.95	27.08		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	0.58	1.65	59.33		
	From 31.27 to 58.62		2	27.35	0.58	1.70	53.31		
	From 58.62 to 94.8		2	36.18	0.58	1.61	66.99		
	From 94.8 to 139.33		2	44.53	0.58	1.49	76.05		
	From 139.33 to 174.39		2	35.06	0.58	1.12	44.96		
	From 174.39 to 208.05		2	33.66	0.58	1.24	48.00		
	Retaining wall towards Manjunathnagar Road								
	From 85.6 to 114.06		2	28.46	0.53	0.29	8.52		
	From 114.06 to 138.56		2	24.50	0.58	1.02	28.74		
	From 138.56 to 163.84		2	25.28	0.58	1.74	50.44		
	From 163.84 to 186.41		2	22.57	0.58	1.71	44.25		
	Crash barrier								
	From 0.00 to 100.62m		2	100.62	0.15	1.18	35.47		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
			2	100.62	0.94	0.23	42.45		
	From 0.00 to 208.05m		2	208.05	0.15	1.18	73.34		
			2	208.05	0.94	0.23	87.77		
	From 0.00 to 186.41m		2	186.41	0.15	1.18	65.71		
			2	186.41	0.94	0.23	78.64		
							892.53		
						Say	893.00	5612.76	5012194.68
5.11	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTDR SR 2011-12)								
	Consider 90kg/cum for Sl.No. 5.08, 5.09, 5.10		--	--	--	--	501.39		
						Say	501.50	68274.71	34239764.86
5.12	KSRRB M2200-9. Providing and laying Filter Media with granular materials / stone crushed aggregates satisfying the requirements laid down in clause 2500.4.2.2. of MORTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification complete as per specifications MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.13 of PW,P&IWTDR S.R 2011-12)								
	Retaining wall								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	0.60	0.41	7.47		
	From 15.18 to 33.88		2	18.70	0.60	1.69	37.81		
	From 33.88 to 46.47		2	12.59	0.60	2.62	39.58		
	From 46.47 to 61.53		2	15.06	0.60	3.64	65.78		
	From 61.53 to 75.83		2	14.30	0.60	4.63	79.45		
	From 75.83 to 100.62		2	24.79	0.60	5.45	162.13		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	0.60	6.15	230.77		
	From 31.27 to 58.62		2	27.35	0.60	6.20	203.32		
	From 58.62 to 94.8		2	36.18	0.60	6.11	265.27		
	From 94.8 to 139.33		2	44.53	0.60	5.99	319.81		
	From 139.33 to 174.39		2	35.06	0.60	5.62	236.23		
	From 174.39 to 208.05		2	33.66	0.60	5.74	231.85		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	0.60	0.45	42.03		
	From 17.84 to 33.65		2	15.81	0.60	1.35	25.61		
	From 33.65 to 65.72		2	32.07	0.60	2.91	111.80		
	From 65.72 to 85.6		2	19.88	0.60	3.69	87.91		
	From 85.6 to 114.06		2	28.46	0.60	4.79	163.42		
	From 114.06 to 138.56		2	24.50	0.60	5.52	162.29		
	From 138.56 to 163.84		2	25.28	0.60	6.24	189.14		
	From 163.84 to 186.41		2	22.57	0.60	6.21	168.06		
							2829.74		
						Say	2830.00	665.28	1882742.40
5.13	KSRRB M2200 - 8.1. Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification complete as per specifications. A. Granular Material MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.11 of PW,P&IWTDR S.R 2011-12)								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From 0 to 15.18		2	15.18	0.60	0.41	7.47		
	From 15.18 to 33.88		2	18.70	0.60	1.69	37.81		
	From 33.88 to 46.47		2	12.59	0.60	2.62	39.58		
	From 46.47 to 61.53		2	15.06	0.60	3.64	65.78		
	From 61.53 to 75.83		2	14.30	0.60	4.63	79.45		
	From 75.83 to 100.62		2	24.79	0.60	5.45	162.13		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	0.60	6.15	230.77		
	From 31.27 to 58.62		2	27.35	0.60	6.20	203.32		
	From 58.62 to 94.8		2	36.18	0.60	6.11	265.27		
	From 94.8 to 139.33		2	44.53	0.60	5.99	319.81		
	From 139.33 to 174.39		2	35.06	0.60	5.62	236.23		
	From 174.39 to 208.05		2	33.66	0.60	5.74	231.85		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	0.60	0.45	42.03		
	From 17.84 to 33.65		2	15.81	0.60	1.35	25.61		
	From 33.65 to 65.72		2	32.07	0.60	2.91	111.80		
	From 65.72 to 85.6		2	19.88	0.60	3.69	87.91		
	From 85.6 to 114.06		2	28.46	0.60	4.79	163.42		
	From 114.06 to 138.56		2	24.50	0.60	5.52	162.29		
	From 138.56 to 163.84		2	25.28	0.60	6.24	189.14		
	From 163.84 to 186.41		2	22.57	0.60	6.21	168.06		
							2829.74		
						Say	2830.00	275.40	779382.00
5.14	KSRB 2.4: Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting earth deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications.	Cum							
	(P.No.6, I.No.2.11 of PW,P&I WTD SR 2011-12)								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	0.60	0.70	12.75		
			2	15.18	0.40	0.50	6.07		
	From 15.18 to 33.88		2	18.70	0.60	0.80	17.95		
			2	18.70	0.85	0.55	17.48		
			2	18.70	0.25	1.69	15.75		
	From 33.88 to 46.47		2	12.59	0.60	0.95	14.35		
			2	12.59	1.00	0.63	15.74		
			2	12.59	0.40	2.62	26.39		
	From 46.47 to 61.53		2	15.06	0.60	1.05	18.98		
			2	15.06	1.25	0.68	25.41		
			2	15.06	0.65	3.64	71.26		
	From 61.53 to 75.83		2	14.30	0.60	1.10	18.88		
			2	14.30	1.70	0.70	34.03		
			2	14.30	1.10	4.63	145.66		
	From 75.83 to 100.62		2	24.79	0.60	1.35	40.16		
			2	24.79	2.85	0.78	109.51		
			2	24.79	2.25	5.45	607.97		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	0.60	1.35	50.66		
			2	31.27	2.85	0.78	138.14		
			2	31.27	2.25	6.15	865.40		
	From 31.27 to 58.62		2	27.35	0.60	1.35	44.31		
			2	27.35	2.85	0.78	120.82		
			2	27.35	2.25	6.20	762.45		
	From 58.62 to 94.8		2	36.18	0.60	1.35	58.61		
			2	36.18	2.85	0.78	159.83		
			2	36.18	2.25	6.11	994.77		
	From 94.8 to 139.33		2	44.53	0.60	1.35	72.14		
			2	44.53	2.85	0.78	196.71		
			2	44.53	2.25	5.99	1199.30		
	From 139.33 to 174.39		2	35.06	0.60	1.35	56.80		
			2	35.06	2.85	0.78	154.88		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From 174.39 to 208.05		2	35.06	2.25	5.62	885.88		
			2	33.66	0.60	1.35	54.53		
			2	33.66	2.85	0.78	148.69		
			2	33.66	2.25	5.74	869.44		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	0.60	0.70	65.39		
			2	77.84	0.40	0.50	31.14		
	From 17.84 to 33.65		2	15.81	0.60	0.80	15.18		
			2	15.81	0.85	0.55	14.78		
			2	15.81	0.25	1.35	10.67		
	From 33.65 to 65.72		2	32.07	0.60	0.95	36.56		
			2	32.07	1.00	0.63	40.09		
			2	32.07	0.40	2.91	74.53		
	From 65.72 to 85.6		2	19.88	0.60	1.05	25.05		
			2	19.88	1.25	0.68	33.55		
			2	19.88	0.65	3.69	95.24		
	From 85.6 to 114.06		2	28.46	0.60	1.25	42.69		
			2	28.46	2.10	0.73	86.66		
			2	28.46	1.50	4.79	408.54		
	From 114.06 to 138.56		2	24.50	0.60	1.35	39.69		
			2	24.50	2.85	0.78	108.23		
			2	24.50	2.25	5.52	608.58		
	From 138.56 to 163.84		2	25.28	0.60	1.35	40.95		
			2	25.28	2.85	0.78	111.67		
			2	25.28	2.25	6.24	709.29		
	From 163.84 to 186.41		2	22.57	0.60	1.35	36.56		
			2	22.57	2.85	0.78	99.70		
			2	22.57	2.25	6.21	630.21		
							11396.65		
						Say	11397.00	58.32	664673.04
5.15	KSRRB M100-4.2. Haulage of materials by tipper including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I : Surface Road	Cum							
	(P. No.141&147 of PW, P&I WTD S.R.2011-12)								
	Qty= Sl.No.5.01x0.075		--	--	--	--	367.54		
	Qty = Sl.No 5.02x0.075		--	--	--	--	367.54		
	Qty = Sl.No. 5.03+5.04+5.05-5.14		--	--	--	--	20038.23		
							20773.30		
						Say	20773.50	123.34	2562203.49
5.16	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per the directions of Engineer in-Charge.								
	(Data Rate)								
	Drain cover on both sides of Retaining wall								
	Towards Basaveshwara Nagar		2	100.62	0.60	--	120.74		
	B/w Shivanagar 1st & 8th Main		2	208.05	0.60	--	249.66		
	Towards Manjunathnagar Road		2	186.41	0.60	--	223.69		
							594.10		
						Say	594.50	1465.00	870942.50
5.17	Providing and fixing of MS Grating of size 260mm x 260mm including cost of materials, labour charges complete as per drawing & as per direction of the Engineer in-charge of the work.	Nos.							
	(Data Rate)								
	Towards Basaveshwara Nagar		20	--	--	--	20.00		
	B/w Shivanagar 1st & 8th Main		42	--	--	--	42.00		
	Towards Manjunathnagar Road		37	--	--	--	37.00		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
							99.00		
5.18	KSSRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos.					Sav 99.00	2767.00	273933.10
	P.No 229, I.No 28.10 of PW,P&I WTD S.R 2011-12)								
	Towards Basaveshwara Nagar		604	--	--	--	604.00		
	B/w Shivanagar 1st & 8th Main		1248	--	--	--	1248.00		
	Towards Manjunathnagar Road		1118		--		1118.00		
							2970.00		
5.19	Anti carbonate painting with approved colour as per specifications including cost of materials, labour etc., complete as per specifications and as directed by the Engineer in Charge.	Sqm					Say 2970.00	148.23	440243.10
	(Market rate)								
	Retaining wall towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	--	0.91	27.63		
	From 15.18 to 33.88		2	18.70	--	2.19	81.72		
	From 33.88 to 46.47		2	12.59	--	3.12	78.56		
	From 46.47 to 61.53		2	15.06	--	4.14	124.70		
	From 61.53 to 75.83		2	14.30	--	5.13	146.72		
	From 75.83 to 100.62		2	24.79	--	5.95	295.00		
	Retaining b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	--	6.65	415.89		
	From 31.27 to 58.62		2	27.35	--	6.70	366.22		
	From 58.62 to 94.8		2	36.18	--	6.61	478.30		
	From 94.8 to 139.33		2	44.53	--	6.49	577.55		
	From 139.33 to 174.39		2	35.06	--	6.12	428.78		
	From 174.39 to 208.05		2	33.66	--	6.24	420.08		
	Retaining wall towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	--	0.95	147.90		
	From 17.84 to 33.65		2	15.81	--	1.85	58.50		
	From 33.65 to 65.72		2	32.07	--	3.41	218.40		
	From 65.72 to 85.6		2	19.88	--	4.19	166.40		
	From 85.6 to 114.06		2	28.46	--	5.29	300.82		
	From 114.06 to 138.56		2	24.50	--	6.02	294.98		
	From 138.56 to 163.84		2	25.28	--	6.74	340.52		
	From 163.84 to 186.41		2	22.57	--	6.71	302.66		
							5271.32		
							Say 5271.50	200.00	1054300.00
5.20	KSSRB 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	Sqm							
	(P.No.191, I.No. 24.1 of PW,P&I WTD SR 2011-12)								
	Crash barrier								
	From 0.00 to 100.62m		2x2	100.62	--	1.55	623.84		
	From 0.00 to 208.05m		2x2	208.05	--	1.55	1289.91		
	From 0.00 to 186.41m		2x2	186.41	--	1.55	1155.74		
							3069.50		
							Say 3069.50	48.49	148846.19
5.21	KSSRB M2700-4. Providing fitting and fixing mild steel railing complete as per drawing and technical Specification. Complete as per MORTH Specification No. 2703.2, 1900	Rmt							
	(P No. 250, I.No. 32.4 of PW, P & I WTD S.R 2011-12)								

1st 8th Main Road Junction

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	Crash barrier								
	From 0.00 to 100.62m		2	100.62	--	--	201.24		
	From 0.00 to 208.05m		2	208.05	--	--	416.10		
	From 0.00 to 186.41m		2	186.41	--	--	372.82		
							990.16		
						Say	990.50	2762.64	2736394.92
									79549075.65
5.22	Miscellaneous & Rounding off								924.35
								TOTAL	79550000.00

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction

Name of the Item: Construction of Ramp

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
6.01	KSRRB 300-44 Scarifying top bituminous surface or surface dressing or premix carpet including picking up scarified materials, stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH Chapter 3	Sqm							
	(P.No.155, I.No.19.50 of PW, P&I WTD SR 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		1	15.18	16.00	--	242.88		
	From 15.18 to 33.88		1	18.70	16.00	--	299.20		
	From 33.88 to 46.47		1	12.59	16.00	--	201.44		
	From 46.47 to 61.53		1	15.06	16.00	--	240.96		
	From 61.53 to 75.83		1	14.30	16.00	--	228.80		
	From 75.83 to 100.62		1	24.79	16.00	--	396.64		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	--	500.32		
	From 31.27 to 58.62		1	27.35	16.00	--	437.60		
	From 58.62 to 94.8		1	36.18	16.00	--	578.88		
	From 94.8 to 139.33		1	44.53	16.00	--	712.48		
	From 139.33 to 174.39		1	35.06	16.00	--	560.96		
	From 174.39 to 208.05		1	33.66	16.00	--	538.56		
	Ramp towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		1	77.84	16.00	--	1245.44		
	From 17.84 to 33.65		1	15.81	16.00	--	252.96		
	From 33.65 to 65.72		1	32.07	16.00	--	513.12		
	From 65.72 to 85.6		1	19.88	16.00	--	318.08		
	From 85.6 to 114.06		1	28.46	16.00	--	455.36		
	From 114.06 to 138.56		1	24.50	16.00	--	392.00		
	From 138.56 to 163.84		1	25.28	16.00	--	404.48		
	From 163.84 to 186.41		1	22.57	16.00	--	361.12		
							8881.28		
						Say	8881.50	19.33	171697.16
6.02	KSRRB 300-45: Scarifying stone metal crust 50mm to 100mm thick with pick axes along with premix carpet / surface dressing and stacking of old serviceable materials by manual means including cost of all labour charges complete as per specifications. MORTH Chapter 3	Sqm							
	(P.No.155, I.No.19.51 of PW, P&I WTD SR 2011-12)								
	Qty same as Sl. No.6.01		--	--	--	--	8881.50	38.66	343394.32
6.03	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & I WTD SR 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From 0 to 15.18		1	15.18	16.00	0.91	221.02		
	From 15.18 to 33.88		1	18.70	16.00	2.19	653.75		
	From 33.88 to 46.47		1	12.59	16.00	3.00	604.32		
	From 46.47 to 61.53		1	15.06	16.00	3.00	722.88		
	From 61.53 to 75.83		1	14.30	16.00	3.00	686.40		
	From 75.83 to 100.62		1	24.79	16.00	3.00	1189.92		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	3.00	1500.96		
	From 31.27 to 58.62		1	27.35	16.00	3.00	1310.61		
	From 58.62 to 94.8		1	36.18	16.00	3.00	1736.64		
	From 94.8 to 139.33		1	44.53	16.00	3.00	2133.88		
	From 139.33 to 174.39		1	35.06	16.00	3.00	1680.08		
	From 174.39 to 208.05		1	33.66	16.00	3.00	1615.68		
	Ramp towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		1	77.84	16.00	0.95	1183.17		
	From 17.84 to 33.65		1	15.81	16.00	1.85	467.98		
	From 33.65 to 65.72		1	32.07	16.00	3.00	1536.79		
	From 65.72 to 85.6		1	19.88	16.00	3.00	952.65		
	From 85.6 to 114.06		1	28.46	16.00	3.00	1363.80		
	From 114.06 to 138.56		1	24.50	16.00	3.00	1176.00		
	From 138.56 to 163.84		1	25.28	16.00	3.00	1211.42		
	From 163.84 to 186.41		1	22.57	16.00	3.00	1081.55		
							23029.50		
						Say	23030.00	40.99	943907.58
6.04	KSRRB M2100-2.2 Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth 3m to 6m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No. 220, I.No.27.5 of PW, P&IWD SR 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								
	From 33.88 to 46.47		1	12.59	16.00	0.12	24.17		
	From 46.47 to 61.53		1	15.06	16.00	1.14	274.69		
	From 61.53 to 75.83		1	14.30	16.00	2.13	487.34		
	From 75.83 to 100.62		1	24.79	16.00	2.95	1170.09		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	3.00	1500.96		
	From 31.27 to 58.62		1	27.35	16.00	3.00	1310.61		
	From 58.62 to 94.8		1	36.18	16.00	3.00	1736.64		
	From 94.8 to 139.33		1	44.53	16.00	3.00	2133.88		
	From 139.33 to 174.39		1	35.06	16.00	3.00	1680.08		
	From 174.39 to 208.05		1	33.66	16.00	3.00	1615.68		
	Ramp towards Manjunathnagar Road								
	From 33.65 to 65.72		1	32.07	16.00	0.41	207.81		
	From 65.72 to 85.6		1	19.88	16.00	1.19	376.92		
	From 85.6 to 114.06		1	28.46	16.00	2.29	1040.50		
	From 114.06 to 138.56		1	24.50	16.00	3.00	1176.00		
	From 138.56 to 163.84		1	25.28	16.00	3.00	1211.42		
	From 163.84 to 186.41		1	22.57	16.00	3.00	1081.55		
							17028.35		
	Consider 60% of the Qnty						10217.01		
						Say	10217.50	46.818	478362.92

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
6.05	KSRRB M2100-3.2: Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. II. Ordinary rock (not requiring blasting) B. Mechanical Means Depth upto 3m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No.220, I.No.27.8 of PW, P&I WTD SR 2011-12)								
	For Ramp								
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	0.65	325.21		
	From 31.27 to 58.62		1	27.35	16.00	0.70	304.13		
	From 58.62 to 94.8		1	36.18	16.00	0.61	353.12		
	From 94.8 to 139.33		1	44.53	16.00	0.48	345.55		
	From 139.33 to 174.39		1	35.06	16.00	0.12	64.51		
	From 174.39 to 208.05		1	33.66	16.00	0.24	129.25		
	Ramp towards Manjunathnagar Road								
	From 114.06 to 138.56		1	24.50	16.00	0.02	7.84		
	From 138.56 to 163.84		1	25.28	16.00	0.73	297.29		
	From 163.84 to 186.41		1	22.57	16.00	0.71	254.59		
							2081.50		
	Consider 95% of the Qty		--	--	--	--	1977.42		
	Consider 40% of the Qty from Sl.No.6.04		--	--	--	--	6811.34		
						Total Qty	8788.76		
						Say	8789.00	51.84	455621.75
6.06	KSRRB M2100-4.2: Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. III Hard rock -(blasting prohibited) A. Mechanical means MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No.221, I.No.27.10 of PW, P&I WTD SR 2011-12)								
	Consider 5% of Quantity Sl.No. 6.05		--	--	--	--	104.07		
						Say	104.50	324	33858.00
6.07	KSRRB M400-7 Construction of granular sub-base by providing coarse graded material, spreading 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 specifications. For Coarse graded granular sub-base material as per 400-2 For Grading I Material.	Cum							
	(P.No.164, I.No.20.6.1 of PW, P&I WTD S.R 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		1	15.18	16.00	0.20	48.58		
	From 15.18 to 33.88		1	18.70	16.00	0.20	59.84		
	From 33.88 to 46.47		1	12.59	16.00	0.20	40.29		
	From 46.47 to 61.53		1	15.06	16.00	0.20	48.19		
	From 61.53 to 75.83		1	14.30	16.00	0.20	45.76		
	From 75.83 to 100.62		1	24.79	16.00	0.20	79.33		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	0.20	100.06		
	From 31.27 to 58.62		1	27.35	16.00	0.20	87.52		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From 58.62 to 94.8		1	36.18	16.00	0.20	115.78		
	From 94.8 to 139.33		1	44.53	16.00	0.20	142.50		
	From 139.33 to 174.39		1	35.06	16.00	0.20	112.19		
	From 174.39 to 208.05		1	33.66	16.00	0.20	107.71		
	Ramp towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		1	77.84	16.00	0.20	249.09		
	From 17.84 to 33.65		1	15.81	16.00	0.20	50.59		
	From 33.65 to 65.72		1	32.07	16.00	0.20	102.62		
	From 65.72 to 85.6		1	19.88	16.00	0.20	63.62		
	From 85.6 to 114.06		1	28.46	16.00	0.20	91.07		
	From 114.06 to 138.56		1	24.50	16.00	0.20	78.40		
	From 138.56 to 163.84		1	25.28	16.00	0.20	80.90		
	From 163.84 to 186.41		1	22.57	16.00	0.20	72.22		
							1776.26		
						Say	1776.50	1050.84	1866817.26
6.08	KSRRB M400-17. Providing laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specifications. MORTH Specification No. 406.	Cum							
	(P.No.166, I.No.20.18 PW,P&I WTD S,R 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		1	15.18	16.00	0.25	60.72		
	From 15.18 to 33.88		1	18.70	16.00	0.25	74.80		
	From 33.88 to 46.47		1	12.59	16.00	0.25	50.36		
	From 46.47 to 61.53		1	15.06	16.00	0.25	60.24		
	From 61.53 to 75.83		1	14.30	16.00	0.25	57.20		
	From 75.83 to 100.62		1	24.79	16.00	0.25	99.16		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	0.25	125.08		
	From 31.27 to 58.62		1	27.35	16.00	0.25	109.40		
	From 58.62 to 94.8		1	36.18	16.00	0.25	144.72		
	From 94.8 to 139.33		1	44.53	16.00	0.25	178.12		
	From 139.33 to 174.39		1	35.06	16.00	0.25	140.24		
	From 174.39 to 208.05		1	33.66	16.00	0.25	134.64		
	Ramp towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		1	77.84	16.00	0.25	311.36		
	From 17.84 to 33.65		1	15.81	16.00	0.25	63.24		
	From 33.65 to 65.72		1	32.07	16.00	0.25	128.28		
	From 65.72 to 85.6		1	19.88	16.00	0.25	79.52		
	From 85.6 to 114.06		1	28.46	16.00	0.25	113.84		
	From 114.06 to 138.56		1	24.50	16.00	0.25	98.00		
	From 138.56 to 163.84		1	25.28	16.00	0.25	101.12		
	From 163.84 to 186.41		1	22.57	16.00	0.25	90.28		
							2220.32		
						Say	2220.50	1060.56	2154973.48

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
6.09	KSRRB M600-1: Construction of dry lean cement concrete mix M5 with OPC cement @ 160kgs, with 25mm and down size graded granite metal coarse aggregates at 0.86cum and fine aggregates @ 0.58cum Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10Mpa at 7days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No.601	Cum							
	(P.No.185, I.No.22.1 of PW, P&I WTD SR 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		1	15.18	16.00	0.15	36.43		
	From 15.18 to 33.88		1	18.70	16.00	0.15	44.88		
	From 33.88 to 46.47		1	12.59	16.00	0.15	30.22		
	From 46.47 to 61.53		1	15.06	16.00	0.15	36.14		
	From 61.53 to 75.83		1	14.30	16.00	0.15	34.32		
	From 75.83 to 100.62		1	24.79	16.00	0.15	59.50		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		1	31.27	16.00	0.15	75.05		
	From 31.27 to 58.62		1	27.35	16.00	0.15	65.64		
	From 58.62 to 94.8		1	36.18	16.00	0.15	86.83		
	From 94.8 to 139.33		1	44.53	16.00	0.15	106.87		
	From 139.33 to 174.39		1	35.06	16.00	0.15	84.14		
	From 174.39 to 208.05		1	33.66	16.00	0.15	80.78		
	Ramp towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		1	77.84	16.00	0.15	186.82		
	From 17.84 to 33.65		1	15.81	16.00	0.15	37.94		
	From 33.65 to 65.72		1	32.07	16.00	0.15	76.97		
	From 65.72 to 85.6		1	19.88	16.00	0.15	47.71		
	From 85.6 to 114.06		1	28.46	16.00	0.15	68.30		
	From 114.06 to 138.56		1	24.50	16.00	0.15	58.80		
	From 138.56 to 163.84		1	25.28	16.00	0.15	60.67		
	From 163.84 to 186.41		1	22.57	16.00	0.15	54.17		
							1332.19		
						Say	1332.50	2757.24	3674022.30
6.10	KSRRB M600-2: Cement Concrete Pavement:- Construction of unreinforced, dowel jointed, plain cement concrete pavement over a prepared sub-base with OPC cement design mix M40 at 360kg per cum, with 25mm and down size graded granite metal coarse aggregate at 0.69cum and fine aggregates @ 0.46cum with superplasticiser at 3lts conforming to IS9103-1999 reaffirmed-2008, coarse and fine aggregates conforming to IS: 383, maximum size of coarse aggregate not exceeding 25mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. MORTH Specification No.602	Cum							

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	(P.No.185, I.No.22.2. of PW, P&IWD SR 2011-12)								
	For Ramp								
	Ramp towards Basaveshwara Nagar 1st Main Road								
	From 0 to 15.18		2	15.18	7.50	0.30	68.31		
	From 15.18 to 33.88		2	18.70	7.50	0.30	84.15		
	From 33.88 to 46.47		2	12.59	7.50	0.30	56.66		
	From 46.47 to 61.53		2	15.06	7.50	0.30	67.77		
	From 61.53 to 75.83		2	14.30	7.50	0.30	64.35		
	From 75.83 to 100.62		2	24.79	7.50	0.30	111.56		
	Ramp b/w Shivanagar 1st & 8th Main								
	From 0 to 31.27		2	31.27	7.50	0.30	140.72		
	From 31.27 to 58.62		2	27.35	7.50	0.30	123.08		
	From 58.62 to 94.8		2	36.18	7.50	0.30	162.81		
	From 94.8 to 139.33		2	44.53	7.50	0.30	200.39		
	From 139.33 to 174.39		2	35.06	7.50	0.30	157.77		
	From 174.39 to 208.06		2	33.66	7.50	0.30	151.47		
	Ramp towards Manjunathnagar Road								
	From 0 to 17.84 & from Ch 495 to Ch 560		2	77.84	7.50	0.30	350.28		
	From 17.84 to 33.65		2	15.81	7.50	0.30	71.15		
	From 33.65 to 65.72		2	32.07	7.50	0.30	144.32		
	From 65.72 to 85.6		2	19.88	7.50	0.30	89.46		
	From 85.6 to 114.06		2	28.46	7.50	0.30	128.07		
	From 114.06 to 138.56		2	24.50	7.50	0.30	110.25		
	From 138.56 to 163.84		2	25.28	7.50	0.30	113.76		
	From 163.84 to 186.41		2	22.57	7.50	0.30	101.57		
							2497.86		
						Say	2498.00	5083.56	12698732.88
6.11	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	T							
	(P.No.229, I.No.28.8 of PW, P&IWD SR 2011-12)								
	Consider 35 kg/cum for Sl.No.6.10								
	For CC Pavement		--	--	--	--	87.43		
						Say	87.50	68274.706	5974036.74
6.12	Providing and fixing Pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.	Nos.							
	(P.No.28, I.No.5.30 of PW, P&IWD SR 2011-12)								
	Ramp towards Basaveshwara Nagar 1st Main Road		447	--	--	--	447.00		
	Ramp b/w Shivanagar 1st & 8th Main		925	--	--	--	925.00		
	Ramp towards Manjunathnagar Road		828	--	--	--	828.00		
							2200.00	248.40	546480.00
6.13	KSRS M800 - 13. Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface: - Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803	Sqm							
	(P.No.193, I.No.24.15 of PW, P&IWD 2011-12)								

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	For Ramp Portion								
	Shoulder Marking								
	Ramp towards Basaveshwara Nagar 1st Main Road		4	100.62	0.10	--	40.25		
	Ramp b/w Shivanagar 1st & 8th Main		4	208.05	0.10	--	83.22		
	Ramp towards Manjunathnagar Road		4	186.41	0.10	--	74.56		
	Centre line Marking								
	Ramp towards Basaveshwara Nagar 1st Main Road		2	100.62	0.10	--	20.12		
	Ramp b/w Shivanagar 1st & 8th Main		2	208.05	0.10	--	41.61		
	Ramp towards Manjunathnagar Road		2	186.41	0.10	--	37.28		
	Direction Arrows		10	5.00	0.90	--	45.00		
							342.05		
						Say	342.50	429.84	147220.20
6.14	KSRRB M800-15. Road Delinators: Supplying and Installation of delineators (road way indicators, hazard markers, object markers), 80 - 100 cm high above ground level, painted black and white in 15 cm wide strips, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC - 79 and the drawings complete as per specifications. MORTH Specification No. 805.	Nos.							
	(P.No.194, I.No.24.19 of PW,P&I WTD SR 2011-12)		99				99		
							100	365.04	36321.48
6.15	KSRRB M800-35 Providing and fixing of road stud 100 x 100 mm, die cast 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 60mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4: 1973 complete as per specifications.	Nos.							
	(P.No.197, I.No.24.41 of PW,P&I WTD SR 2011-12)								
	Road stud on centre line marking								
	Ramp towards Basaveshwara Nagar 1st Main Road		67	--	--	--	67.00		
	Ramp b/w Shivanagar 1st & 8th Main		139	--	--	--	139.00		
	Ramp towards Manjunathnagar Road		124	--	--	--	124.00		
							330.00	290.52	95871.60
6.16	KSRRB M800-2. Retro-Reflectorised Traffic Signs: Providing and fixing of Retro-reflectorised cautionary, mandatory, informatory sign as per IRC:67 made of high intensity grade sheeting vide clause 800.1.3. fixed over Aluminium sheeting. 1.5 mm thick supported on a mild steel angle iron post 75mm x 75mm x 6mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45cm x 45cm x 60cm, 60cm below ground level as per approved drawing complete as per specifications. MORTH Specification No. 801.	Each							
	(P.No.191, I.No.24.2 of PW,P&I WTD SR 2011-12)								
	60cm circular		8	--	--	--	8	2539.08	20312.64
6.17	KSRRB M100-4.2. Haulage of materials by tipper Including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I : Surface Road	Cum							
	(P. No.141&147 of PW, P&I WTD S.R 2011-12)								
	Qty = Sl.No.6.01x0.075		--	--	--	--	666.11		
	Qty = Sl.No.6.02x0.075		--	--	--	--	666.11		
	Qty = Sl.No.6.03+6.04+6.05		--	--	--	--	42139.85		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
							43472.07		
						Say	43472.50	132.84	5774886.90
									35616517.21
6.18	Miscellaneous & Rounding off								482.79
								TOTAL	35617000

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction

Name of the Item: Drainage Facility to Underpass

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.01	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTD SR 2011-12)								
	Drain Across box portion		1	17.80	1.70	1.45	43.88		
	NP3 Pipe		1	235.00	1.80	3.00	1266.89		
	Man Hole		6	3.60	3.60	3.00	232.89		
	RCC Drain		1	150.00	2.20	2.05	676.50		
							2220.15		
						Say	2220.50	40.99	91009.41
7.02	KSRRB M2100-2.2 Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth 3m to 6m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No. 220, I.No.27.5 of PW, P&IWTD SR 2011-12)								
	NP3 Pipe		1	235.00	1.80	0.62	260.15		
	Man Hole		6	3.60	3.60	0.92	71.15		
							331.30		
	Consider 60% of the Qnty		--	--	--	--	198.78		
						Say	199.00	46.818	9316.78
7.03	KSRRB M2100-3.2: Earth work in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. II.Ordinary rock (not requiring blasting) B.Mechanical Means Depth upto 3m. MORTH Specification No.304 (Add 10% of Dewatering Charges)	Cum							
	(P.No. 220, I.No.27.8 of PW, P&IWTD SR 2011-12)								
	Consider 40% of the Qnty for Sl.No.7.02.		--	--	--	--	132.52		
						Say	133.00	51.84	6894.72
7.04	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No. 222, I.No.27.24 of PW, P&IWTD S.R 2011-12)								
	Drain Across box portion		1	17.20	1.70	0.15	4.39		
	NP3 Pipe		1	235.00	1.50	0.15	52.88		
	Man Hole		6	3.00	3.00	0.15	8.10		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	RCC Drain		1	150.00	2.20	0.15	49.50		
	Benching Concrete on both sides of NP3 Pipe								
	NP3 Pipe		1	235.00	0.72		168.50		
							283.36		
						Say	283.50	3655.94	1036458.99
7.05	KSRRB M2100-15.1: "KSRRB M2100-14. Plain /Reinforced Cement Concrete M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed 2008, in Open Foundation complete as per Drawing and Technical Specifications. Case - I: Using Concrete Mixer. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No. 222, I.No. 27.26 of PW, P&IWD SR 2011-12)								
	Drain Across box portion								
	Bottom Slab		1	17.20	1.40	0.20	4.82		
	Side wall		2	17.20	0.20	1.00	6.88		
	RCC Drain								
	Bottom Slab		1	150.00	1.90	0.20	57.00		
	Side wall		2	150.00	0.20	1.50	90.00		
	Top Slab		1	150.00	1.90	0.20	57.00		
							215.70		
						Say	216.00	4707.72	1016867.52
7.06	KSRRB M2100-16.1: Plain /Reinforced Cement Concrete design mix M25 with OPC cement @ 340kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.70cum and fine aggregates @ 0.47cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed 2008, in Open Foundation complete as per Drawing and Technical Specifications. D. PCC Grade M-25. Case - I: Using Concrete Mixer. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No. 223, I.No. 27.28 of PW, P&IWD SR 2011-12)								
	Man Hole								
	Bottom Slab		6	2.80	2.80	0.30	14.11		
	Side wall		12	2.30	0.25	2.50	17.25		
			12	1.80	0.25	2.50	13.50		
	Top Slab		6	2.80	2.80	0.25	11.76		
							56.62		
						Say	57.00	4811.4	274249.80
7.07	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No. 229, I.No. 28.8 of PW, P&IWD SR 2011-12)								
	Drain Across box portion								
	Consider 90Kgs/cum for Sl.No. 7.05		--	--	--	--	21.60		
	Man Hole								
	Consider 70Kgs/cum for Sl.No. 7.06		--	--	--	--	3.99		
							25.59		
						Say	26.00	68274.71	1775142.35
7.08	Providing and laying reinforced cement concrete pipe NP3 of 1200mm dia for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour curing complete as per specifications. Specification No. KSRB 1000, 2300 MOST Specification No. 1000 / 2300	Rmt							
	(Pg.No. 257, I.No. 34.6.6 of PW, P&IWD SR 2011-12)								
	NP3 Pipe		1	235.00	--	--	235.00	9066.60	2130651.00

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.09	KSRB 2.4: Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting earth deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications.	Cum							
	(P.No.6, I.No.2.11 of PW,P&I WTD SR 2011-12)								
	Both sides of Manhole		1	0.60	0.60	3.76	1.35		
	Both sides of RCC Drain		1	150.00	0.60	2.05	184.50		
	NP3 pipe								
	Both sides		1	235.00	1.80	3.46	1463.58		
	Deduct for NP3 Pipe		1	235.00	1.13		-265.64		
							1383.79		
						Say	1384.00	58.32	80714.88
7.10	KSRB 12-6.3: Providing 20mm round footrest and fixing in manhole with M10 cement concrete block of 20x20x10cms, using 20mm and down size metal of size metal of size including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS 12.4.6	Nos.							
	(P.No.74 of I.No.11.45 in PW,P&I WTD SR 2011-12)								
	Manhole footrest		18	--	--	--	18	205.2	3693.60
7.11	Providing and fixing M.S Manhole cover of size 600x600mm including with all all lead & lift, loading & unloading, tools, plants and other incidental charges as per specifications and as per the directions by Engineer in charge of the work.	Nos.							
	(Data Rate)		6	--	--	--	6	6222.00	37332.00
7.12	KSRB M220 - 8: Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos.							
	P.No 229, I.No 28.10 of PW,P&I WTD S.R 2011-12)								
	Manhole		60	--	--	--	60.00		
						Say	60.00	148.23	8893.80
7.13	M.S Grating for Drains at Ramp Portion	Sqm							
	(Data Rate)								
	Drain across box portion		1	17.20	1.20	--	20.64		
						Say	21.00	21381.00	449001.00
7.14	KSRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder / Stone aggregates / Sand /Kankar / Moorum KSRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MoRT&H Chapter 1	Cum							
	Conveying up to 20km by Mechanical means.								
	(P. No.141&147 of PW, P & I WTD S.R 2011-12)								
	For Drainage facility								
	Qty = Sl.No.7.01+7.02 - 7.09		--	--	--	--	1167.80		
						Say	1168.00	123.34	144056.448

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.15	KSRRB M300-55. Construction of subgrade and earthen shoulders with approved material gravel / murrum with all lifts & leads, transporting to site, spreading grading to required slope and compacted to meet requirement of Table 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller) MORTH Specification No. 305	Cum							
	(P.No.156, I.No.19.62 of PW,P&I WTD S.R 2011-12)		1	100.00	3.00	0.50	150.00		
						Say	150.00	174.96	26244.00
7.16	KSRRB M400-7 Construction of granular sub-base by providing coarse graded material, spreading 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 specifications. For Coarse graded granular sub-base material as per 400-2 For Grading I Material.	Cum							
	(P.No.164, I.No.20.6.1 of PW,P&I WTD S.R 2011-12)		1	100.00	3.00	0.20	60.00		
						Say	60.00	1050.84	63050.40
7.17	KSRRB M400-17. Providing laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specifications. MORTH Specification No. 406.	Cum							
	(P.No.166, I.No.20.18 PW,P&I WTD S.R 2011-12)		1	100.00	3.00	0.25	75.00		
						Say	75.00	1060.56	79542.00
7.18	KSRRB M500-6. Providing and applying Primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502	Sqm							
	(P.No.171, I.No.21.6 of PW,P&I WTD S.R 2011-12)		1	100.00	3.00	--	300.00		
						Say	300.00	40.5864	12175.92
7.19	KSRRB 500-8 Providing and applying tack coat on granular surface treated with primer at 3 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No. 172 I.No.21.8 of PW,P&I WTD S.R 2011-12)		1	100.00	3.00	--	300.00		
						Say	300.00	19.98	5994.00

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.20	KSRRB 500-11: Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregaters with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade,rolling by power roller to acheive the deisred density, 50 / 75 mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack coat with lead upto 1km including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 with 60 / 70 grade bitumen	Cum							
	(P.No.172 I.No. 21.11.2 of PW,P&IWTD S.R 2011-12)								
			1	100.00	3.00	0.05	15.00		
						Say	15.00	6490.61	97359.08
7.21	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWTD SR of 2011-12)								
			1	100.00	3.00	--	300.00		
						Say	300.00	16.4592	4937.76
7.22	KSRRB M500-17: Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.0 to 4.5% by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignmnet, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.7 complete in all respects as per specifications. Bitumen 60/70 MoRT&H Specification No. 507	Cum							
	(P.No. 174 I.No.21.19.2 of PW,P&IWTD S.R 2011-12)								
			1	100.00	3.00	0.05	15.00		
						Say	15.00	8856.14	132842.106
7.23	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWTD SR of 2011-12)								
			1	100.00	3.00	--	300.00		
						Say	300.00	16.4592	4937.76

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.24	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100 - 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum							
	(P.No.175 of I.No 21 22.4 in PW,P&I WTD S.R 2011-12)								
			1	100.00	3.00	0.04	12.00		
						Say	12.00	11208.63	134503.5456
									7625868.87
7.25	Miscellaneous & Rounding off								131.13
								TOTAL	7626000.00

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction

Name of the Item: Diversion Road

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
8.01	KSRRB 3000: Filling Pot - holes and Patch Repairs with Bituminous Concrete, 40mm KSRRB M3000-5: Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 500.3, back filling the pot holes with hot bituminous material as per clause 500.4, compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2 complete as per specifications. MORTH Specification No.3004.2	Sqm							
	(P.No. 260, I.No. 35.5, P, PW & IWTDR 2011-12)				Avg				
	West side								
	From CH-1060 to CH-1160		1	100.00	10.80	--	1080.00		
	From CH-1000 to CH-1050 (Junction)		1	50.00	9.75	--	487.50		
	From CH-820 to CH-1000		1	180.00	8.80	--	1584.00		
	From CH-740 to CH-820 (Junction)		1	80.00	5.50	--	440.00		
	From CH-560 to CH-740		1	180.00	5.48	--	985.50		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.40	--	940.00		
	From CH-1000 to CH-1050 (Junction)		1	50.00	8.30	--	415.00		
	From CH-820 to CH-1000		1	180.00	8.19	--	1474.02		
	From CH-740 to CH-820 (Junction)		1	80.00	8.80	--	704.00		
	From CH-560 to CH-740		1	180.00	6.50	--	1169.82		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	39.35	--	3148.00		
	Battery limit towards Manjunathnagar Road Junction		1	40.00	32.77	--	1310.80		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	--	1909.33		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	--	1131.33		
	Towards Prakashnagar		1	100.00	11.38	--	1138.00		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	--	833.33		
							18750.64		
	Consider 3% of the area		--	--	--	--	562.52		
						Say	562.52	382.48	215153.77
8.02	KSRRB M500-56.1: Providing and laying slurry seal consisting of a mixture of fine aggregates, portable cement filler, bituminous emulsion and water on a road surface including cleaning of surface, mixing of slurry seal in a suitable mobile plant, laying and compacting to provide even riding surface Complete as per specifications. Case-I: 5mm thickness MORTH Specification No. 516	Sqm							
	(P.No.181, I.No. 21.64 of P, PW & IWTDR 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.80	--	1080.00		
	From CH-1000 to CH-1050 (Junction)		1	50.00	9.75	--	487.50		
	From CH-820 to CH-1000		1	180.00	8.80	--	1584.00		
	From CH-740 to CH-820 (Junction)		1	80.00	5.50	--	440.00		
	From CH-560 to CH-740		1	180.00	5.48	--	985.50		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.40	--	940.00		
	From CH-1000 to CH-1050 (Junction)		1	50.00	8.30	--	415.00		
	From CH-820 to CH-1000		1	180.00	8.19	--	1474.02		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From CH-740 to CH-820 (Junction)		1	80.00	8.80	--	704.00		
	From CH-560 to CH-740		1	180.00	6.50	--	1169.82		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	39.35	--	3148.00		
	Battery limit towards Manjunathnagar Road Junction		1	40.00	32.77	--	1310.80		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	--	1909.33		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	--	1131.33		
	Towards Prakashnagar		1	100.00	11.38	--	1138.00		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	--	833.33		
							18750.64		
	Consider 1% of the area		--	--	--	--	187.51		
						Say	188.00	77.28	14529.54
8.03	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MoRT&H/ Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&I WTD SR of 2011-12)				Avg				
	West side								
	From CH-1060 to CH-1160		1	100.00	10.80	--	1080.00		
	From CH-1000 to CH-1050 (Junction)		1	50.00	9.75	--	487.50		
	From CH-820 to CH-1000		1	180.00	8.80	--	1584.00		
	From CH-740 to CH-820 (Junction)		1	80.00	5.50	--	440.00		
	From CH-560 to CH-740		1	180.00	5.48	--	985.50		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.40	--	940.00		
	From CH-1000 to CH-1050 (Junction)		1	50.00	8.30	--	415.00		
	From CH-820 to CH-1000		1	180.00	8.19	--	1474.02		
	From CH-740 to CH-820 (Junction)		1	80.00	8.80	--	704.00		
	From CH-560 to CH-740		1	180.00	6.50	--	1169.82		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	39.35	--	3148.00		
	Battery limit towards Manjunathnagar Road Junction		1	40.00	32.77	--	1310.80		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	--	1909.33		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	--	1131.33		
	Towards Prakashnagar		1	100.00	11.38	--	1138.00		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	--	833.33		
							18750.64		
						Say	18751.00	16.46	308626.46
8.04	KSRRB M500-19: Providing and laying bituminous concrete 40 mm thick with 100 - 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum							
	(P.No.175 of I.No.21.22.4 in PW,P&I WTD S.R 2011-12)								
	West side								
	From CH-1060 to CH-1160		1	100.00	10.80	0.04	43.20		
	From CH-1000 to CH-1050 (Junction)		1	50.00	9.75	0.04	19.50		

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	From CH-820 to CH-1000		1	180.00	8.80	0.04	63.36		
	From CH-740 to CH-820 (Junction)		1	80.00	5.50	0.04	17.60		
	From CH-560 to CH-740		1	180.00	5.48	0.04	39.42		
	East Side								
	From CH-1060 to CH-1160		1	100.00	9.40	0.04	37.60		
	From CH-1000 to CH-1050 (Junction)		1	50.00	8.30	0.04	16.60		
	From CH-820 to CH-1000		1	180.00	8.19	0.04	58.96		
	From CH-740 to CH-820 (Junction)		1	80.00	8.80	0.04	28.16		
	From CH-560 to CH-740		1	180.00	6.50	0.04	46.79		
	Battery limit towards Basaveshwara nagar 1st Main Road Junction		1	80.00	39.35	0.04	125.92		
	Battery limit towards Manjunathnagar Road Junction		1	40.00	32.77	0.04	52.43		
	Battery Limit								
	Towards Majestic		1	100.00	19.09	0.04	76.37		
	Towards Shivanagar 1st Main Road		1	100.00	11.31	0.04	45.25		
	Towards Prakashnagar		1	100.00	11.38	0.04	45.52		
	Towards Shivanagar 8th Main Road		1	100.00	8.33	0.04	33.33		
							750.03		
						Say	750.50	11208.63	8412075.91
8.05	KSRRB M800-43: Installation of a steel portable barricade with horizontal rail 300mm wide, 2.5m in length fitted on a 'A' frame made with 45x45x5mm angle iron section, 1.5m in height, horizontal rail painted (2coats) with yellow and white stripes, 150mm in width at an angle of 45degree, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55 2001 complete as per specifications.	Each							
	(P.No.198, I.No.24.44 of PW,P&I WTD SR 2011-12)								
			487	--	--	--	487.00	2214.00	1078218.00
8.06	Supplying, fabricating, erecting, and fixing in position, inserts and embedment, Truss, clamps, brackets, insert plates and all miscellaneous steel works as shown in drawing and as directed by the Engineer at all depths, using MS angles, channels, steel beams, rails, tees, plates, flats, rounds squares etc., of various sizes and other structural section conforming IS 2062 grade A, medium class GI pipes etc., including straightening, cutting, fabricating, welding, bending to slope fixing to position, welding to insert plate embedded in concrete and inclusive of 2coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all materials, labour, tools, tacks, cranes, devices and plants, Welding Electrodes, Bolts, Nuts, Washers, Clamps, connections, Shims and Packing Pieces etc., required for the Work as per the specifications and Drawings complete with all lead and lifts as directed by the Engineer-in-charge.								
	Data Rate	MT							
	MS Sheet 2mm thick for Barricading								
	1239x 1.5 x 0.002 x 7850 =29178.45kg Say 29.18MT		--	--	--	--	29.18		
						Say	29.50	61000.00	1799500.00
8.07	Providing and fixing Project Display Board of size 1.80 vertical x 1.60 mtrs. Horizontal made of cold rolled coil 16 Gauge (1.6mm thickness) sheeting strengthened by welding to MS angle of size 35x35x5mm iron framework on all sides, extra cross vertical angle fixed using nuts and bolts, base of the board shall be cleaned, applying red oxide								

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate in Rs.	Amount in Rs.
	and black paint by sprayer on both sides of the board and all MS iron frameworks, background of the facing side of the board painted in traffic yellow, project information written in English / Kannada / Hindi, painting letters and numeral in black, fixed on a mild steel angle iron post 75 mm x 75 mm x 6mm, 2Nos. firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60cm below ground level and the board 2.8m from ground level as per approved drawing including cost of all materials, labour, unloading, curing backfilling, transporting etc., complete.	Each							
	(P. No.81, Item no 8.47 of NHSR 2009-10)		2	--	--	--	2	7960.60	15921.20
8.08	KSRRB M800-45: Drum delinator in construction zone Provision of metal drum / empty bitumen drum delinator, 300mm in diameter, 890 mm high, filled with earth for stability, painted in circumferential strips of alternate black and white 100mm wide fitted with reflectors 3Nos of 7.5cm dia, all as per IRC:SP:55-2001 complete as per specifications.	Each							
	(P.No.199, I.No.24.48 of PW, P&IWTD SR 2011-12)		15	--	--	--	15	371.52	5572.80
8.09	KSSRRB M800 - 46. Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag 600 x 600 mm securely fastened to a staff 1 m in length for guiding the traffic complete as per specifications.	Each							
	(P.No.199, I.No.24.49 of PW,P&IWTD 2011-12)		2250	--	--	--	2250.00	281.88	634230.00
	Considering 5 Nos. per day for a period of 15months								12483827.69
8.10	Miscellaneous & Rounding off								172.31
								TOTAL	12484000.00

BANGALORE DEVELOPMENT AUTHORITY**Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road****Name of the Work: Construction of Intergrated Underpass at Shivanagara 1st & 8th Main Road Junction****Name of the work: Electrical Works**

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
9.00	Electrical Works				
9.1	Supplying and fixing of Philips make Velocity street light fixtures suitable for:250 Watt SON - T PIA sodium vapour lamp SGP 338 / 250 SON - T sea green, or equivalent with following parameters Housing made out of LM6 high pressure die cast recyclable aluminium alloy ofr sturdiness and excellent corrosion resistance the finish should be powdwe coated sea green housing for improved aesthetics and better environmental protection. The lamp compartment should consist of electrochemically anodized, high purity POT reflector with a soecifically designed ribbed profile for better uniformity and high spacing to mounting ratio, All electrical accessories such as energy efficient low loss open construction copper ballast with tw.130 deg., semi parallel ignitor and siemens EPCOS make power pafactor improvement capacitor should be provided prewired upto terminal block. All accessories are to be mounted toa removabl gear plate for ease of maintenance. All electrical connections of the control gear module with the rest of the luminarie are click fix, foolproof and require use of no., tools.				
	Control gear compartment opens from top. Heat resistant toughened curved glass bowl for the lamp compartment, which is sealed replacement, is by opening the top compartment to ensure ingress protection of IP66 for the lamp compartment. Flexible optics to achieve optimum light distribution to suit different road and installation parameter. Specially designed dual pole mounting arrangement bottom as well as lateral pole mounting suitable for mounting on pole dial., 42mm-70mm luminarie shall fully confirmed to safety norms according to IEC598/ENEC60598 make philips or GE.	Nos.	100	10500.00	1050000.00
9.2	SON-T PLUS PIA 250W HPSV TUBULAR LAMP Supplying and fixing 250W high pressure sodium vapour lamp of tubular design with lead free environment- friendly glass, without built in ignitor and having a luminous efficacy not less than 125 lumen/watt with a restricting time-30seconds suitable for fixing in the velocity sodium vapour street light fitting for operation on single phase 230V 50Hz, AC power supply and confirming to IS9974 PART I and II (latest).	Nos.	100	9500.00	950000.00
9.3	Fixing metal halide Street light fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires complete (SR 2010-11) Page 26, Item 5.	Nos.	200	130.00	26000.00
9.4	Supplying and fixing telescopic M.S.bracket fabricated by using 0.5m length 4" dia telescopic M.S.pipe with 2" dia 1.5m long M.S.bracket all are welded with suitable angle using 6mm.thick M.S.sheet, grip bolt & nuts as required suitable for 9 to 12 mtrs M.S.tubular pole, or octogonal pole with necessary two coats of approved painting, with all other accessories etc complete				
	a) Single bracket 1 X 1.5 Mtr.Length (SR 2010-11) Page 26, Item 4(b).	Nos.	100	1005.00	100500.00
	c) Double bracket 2 X 1.5 Mtr.Length (SR 2010-11) Page 26, Item 4(c).	Nos.	50	1200.00	60000.00

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
9.5	Fabricating, supplying and erecting sawged tubular pole of height 9Mtr having three sections and providing two coats of red oxide paint and finished with two coats of enameled paint of approved quality and color and M.S. Base plate of suitable size welded at the bottom of the pole (as per IS) and 40mm dia GI/flexible PVC pipe of 1Mtr. length fitted to the heavy gauge polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole /200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB/DP switch. The pole shall be erected in cement concrete work (1:2:4) including excavation and refilling of planting depth of the pole to the ground level and the coping CC shall be upto 0.6M above ground level as per 2713-7				
	C) 10 Mtr (5.2Mtr Hb 139.7mm dia 4.85mm thick x 2.4 Mtr Hm, 114.3mm dia 4.50mm thick x 2 M Ht, 88.9mm dia 3.25mm thick as per IS 410 SP 29	Nos.	150	18050.00	2707500.00
9.6	Supply, installation, testing & commissioning of outdoor type feeder pillar board with TVM meter as per power distribution schematic diagram enclosed. The rates shall include all necessary foundation & civil works (MKT Rate)	No	1	80000.00	80000.00
9.7	Supplying, providing, testing and commissioning of 1.1 KV class single core 3/20mm stranded copper cable PVC insulated and sheathed for street lights from the control points located on pole supports at 2.0m above ground level complete and as directed by the Engineer in charge (SR 2010-11) Page 9, Item 20(I) (c)	Mtrs	3000	25.00	75000.00
9.8	Supplying, providing, testing and commissioning of 50mm GI pipe at pole supports to enclose the UG cable etc., complete and as directed by the Engineer in charge including digging erection etc. (SR 2010-11) Page 69, Item 15(b).	Mtrs	300	260.00	78000.00
9.9	ELECTRIFICATION - BOX TUNNEL				
9.9.1	Supplying high pressure 150 Watts metal halide street light luminaire suitable for use with high pressure metal halide lamp with integrated control gear. The fitting shall be on non corrosive high pressure die cast aluminum housing with low copper content gray powder coated finish including wiring, suitable to operate on 230/250V 50Hz AC supply including heavy duty copper biased igniter, condenser and 150watts metal halide lamp. (SR 2010-11) page 19, Item 13.(II).(a)	Nos.	32	5450.00	174400.00
9.9.2	Fixing metal halide Street light fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires complete (SR 2010-11) Page 26, Item 5.	Nos.	32	130.00	4160.00
9.10	Supplying 25mm dia 2mm thick heavy gauge PVC conduit pipe with suitable size bends, metal junction boxes, adhesive paste etc, and running before concreting the slabs. The conduit should be tied to the reinforcement rods by using binding wires and unused ways of junction boxes and pipes end should be covered using PVC and enclosures and run pipes with 18SWG GI fish wire run throughout the conduit wherever necessary. (Pg. No. 35 PWD SR 99-00 Item No. II 2 (b))	Mtrs	300	41.00	12300.00
9.11	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers etc., complete 63 Amps	Nos.	4	219.00	876.00
9.12	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable 50mm	Rmtr	100	260.00	26000.00

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
9.13	Fabricating supplying and mounting MS box made out...SWG suitable for floor/wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with 16SWG	Nos.	150	600.00	90000.00
9.14	Supplying of L.T. Cables				
	Supplying of L.T.UG cable having aluminium conductor PVC insulated sheathed, galvanised, steel wire/steel tape armoured cable with PVC outer sheathing 1.1 KV class (conforming to IS 1554)				
9.14.1	3.5C x 50 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(g)	Mtrs.	100	250.00	25000.00
9.14.2	3.5C x 25 Sqmm XLPE cable (SR 2010-11) page 67; Item 10(I)(e)	Mtrs.	150	215.00	32250.00
9.14.3	4C x 16 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(d)	Mtrs.	3000	150.00	450000.00
9.15	Laying of L.T. Underground cables				
	Labour charges for laying of 1.1 KV class UG cable when supplied departmentally / agency in existing trench GI pipe / stoneware pipe / on wall / on pole as required				
9.15.1	3.5C x 50 Sqmm XLPE cable (SR 2010-11) page 68, Item 11.(I).(b)	Mtrs.	100	8.00	800.00
9.15.2	3.5C x 25 Sqmm XLPE cable (SR 2010-11) page 68, Item 11.(I).(b)	Mtrs.	150	8.00	1200.00
9.15.3	4 C x 16 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(a)	Mtrs.	3000	5.00	15000.00
9.16	End Termination of above cables with glands crimping type copper sockets.				
9.16.1	3.5C x 50 Sqmm XLPE cable (SR 2010-11) Page 69 & 72 item 17(d) & 26() ()	Nos.	4	340.00	1360.00
9.16.2	3.5C x 25 Sqmm XLPE cable (SR 2010-11) Page 69 & 72 item 17(d) & 26() ()	Nos.	4	215.00	860.00
9.16.3	4C x 16 Sqmm XLPE cable (SR 2010-11) Page 69 & 72 item 17(d) & 26() ()	Nos.	300	150.00	45000.00
9.17	Supplying and fixing L.T. cast iron pot heads suitable for 1.1KV class UG Cable filled with necessary bitumen/insulating compound with terminals, clamps, bolts, nut and washers etc.,				
a)	35 sqmm (SR 2010-11) page 69, Item 16(e)	Nos.	4	313.00	1252.00
b)	25 sqmm (SR 2010-11) page 69, Item 16(e)	Nos.	4	286.00	1144.00
9.18	Digging of trench of 0.6 mtr deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete (as per civil SR KSRB 1-2.P-7)				
	a. In soil (hard) (SR 2010-11) Page 68, Item 12(b)	Rmtr	2000	50.00	100000.00
9.19	EARTHING				
9.19.1	Supplying fixing, wiring earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit. The pit should be filled with equal proportion of salt and charcoal 150mm allround the pipe to complete depth. The connection from the pipe to the conduit etc, is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 12.2mm dia. (SR 2010-11) page-67, item-7	Nos.	6	1950.00	11700.00
9.20	Supply & laying following GI Flat/wires as Earthing conductors from equipment to earth stations.				
9.20.1	25 x 6mm G.I. Flat (SR 2010-11) Page 67.9 (b)	Mtrs.	300	121.00	36300.00
9.20.2	8 SWG G.I Wire (SR 2010-11) Page-74, item 30.I.(c)	Mtrs.	2000	20.00	40000.00

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
9.21	Miscellaneous				
9.21.1	Providing and laying reinforced cement concrete pipe NP2 150mm dia for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300	Mtrs.	100	389.00	38900.00
	(Pg No. 225, I.No.34 7.1 of PW,P&I WTD SR 2011-12)				
					6235502.00
9.22	Miscellaneous & Rounding off				4498.00
				Total Amount in Rs.	6240000.00

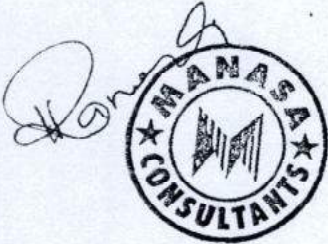
BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements Corridor along Selected Stretch of Choru Road

Name of the Work: Construction of Flyover at Basaveshwara Nagar 1st Main Road Junction

Abstract of Detailed Cost Estimate

Sl. No.	Particulars	Cost in Rs.
1	Surface Level Roads / Slip Roads	20754000
2	Drain Works	
	a. Road Side Drain and Footpath	16660000
	b. Culverts across Roads	1134000
	c. Construction of Retaining Wall	1920000
3	Median, Kerb and Reconstruction of Retaining wall along Service Road	2861000
4	Road Furniture and other Works	4779000
5	Flyover Works	35538000
6	Flyover Approaches	37025000
7	Site Clearance and Dismantling	1544000
8	Diversion Road	8093000
9	Electrical Works	2690000
	Construction Cost	132998000



(Signature)
ಕಾರ್ಯದರ್ಶಿ ಅಭಿಯಂತರರು
(ಯೋಜನೆ ವಿಭಾಗ ಕೋಶ-1)
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Flyover at Basaveshwara Nagar 1st Main Road Junction

Detailed Cost Estimate

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1.00	SURFACE LEVEL ROADS/ SLIP ROADS								
1.01	KSRRB M300-11. Excavation for road way in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 meters (average lead 50 meters), including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections complete as per specifications. MoRT&H Specification No. 301	Cum							
	(P.No.150, I.No.19.11 of PW, P & IWTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	1.09	2163.38		
	Ch 1540 to Ch 1340		1	200.00	7.95	1.09	1733.10		
	Below Obligatory Span		1	40.00	8.85	1.09	385.86		
	At Junction		1	50.00	10.85	1.09	591.33		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	1.09	2156.57		
	For Left Turn From Service Road		1	40.00	5.30	1.09	231.08		
	Service Road West Side		1	100.00	6.60	1.09	719.40		
							7980.71		
							Say	7981.00	70.36
									561559.12
1.02	KSRRB M100-4.2. Haulage of materials by tipper Including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I : Surface Road	Cum							
	(P. No.141&147 of PW, P&IWTD S.R 2011-12)								
	Qty same as item no 1.01								
	For 20Km Rs. 2 X 1.3 X 20 = (52.00 + 62.20) X 1.08 = 123.34		1	7981.00	--	--	7981.00	123.34	984376.54
1.03	KSRRB M300-55. Construction of subgrade and earthen shoulders with approved material gravel / murrum with all lifts & leads, transporting to site, spreading grading to required slope and compacted to meet requirement of Table 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller) MORTH Specification No. 305	Cum							
	(P.No.156, I.No.19.62 of PW,P&IWTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.50	992.38		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.50	795.00		
	Below Obligatory Span		1	40.00	8.85	0.50	177.00		
	At Junction		1	50.00	10.85	0.50	271.25		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.50	989.25		

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	For Left Turn From Service Road		1	40.00	5.30	0.50	106.00		
	Service Road West Side		1	100.00	6.60	0.50	330.00		
	Filling Tree Roots area		8	2.00	2.00	2.50	80.00		
							3740.88		
						Say	3741.00	174.96	654525.36
1.04	KSRRB M400-7 Construction of granular sub-base by providing coarse graded material, spreading 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 specifications. For Coarse graded granular sub-base material as per 400-2 For Grading I Material.	Cum							
	(P.No.164, I.No.20.6.I of PW,P&I WTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.20	396.95		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.20	318.00		
	Below Obligatory Span		1	40.00	8.85	0.20	70.80		
	At Junction		1	50.00	10.85	0.20	108.50		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.20	395.70		
	For Left Turn From Service Road		1	40.00	5.30	0.20	42.40		
	Service Road West Side		1	100.00	6.60	0.20	132.00		
							1464.35		
							1464.50	1050.84	1538955.18
1.05	KSRRB M400-17. Providing laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specifications. MORTH Specification No 406.	Cum							
	(P.No.166, I.No.20.18 PW,P&I WTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.25	496.19		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.25	397.50		
	Below Obligatory Span		1	40.00	8.85	0.25	88.50		
	At Junction		1	50.00	10.85	0.25	135.63		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.25	494.63		
	For Left Turn From Service Road		1	40.00	5.30	0.25	53.00		
	Service Road West Side		1	100.00	6.60	0.25	165.00		
							1830.44		
						Say	1830.50	1060.56	1941355.08
1.06	KSRRB M500-6. Providing and applying Primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502	Sqm							
	(P.No.171, I.No.21.6 of PW,P&I WTD S.R 2011-12)								
	Surface level Roads								

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	--	1984.75		
	Ch 1540 to Ch 1340		1	200.00	7.95	--	1590.00		
	Below Obligatory Span		1	40.00	8.85	--	354.00		
	At Junction		1	50.00	10.85	--	542.50		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	--	1978.50		
	For Left Turn From Service Road		1	40.00	5.30	--	212.00		
	Service Road West Side		1	100.00	6.60	--	660.00		
							7321.75		
						Say	7322.00	40.59	297173.62
1.07	KSRRB 500-8 Providing and applying tack coat on granular surface treated with primer at 3 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No. 172 I.No.21.8 of PW,P&I WTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	--	1984.75		
	Ch 1540 to Ch 1340		1	200.00	7.95	--	1590.00		
	Below Obligatory Span		1	40.00	8.85	--	354.00		
	At Junction		1	50.00	10.85	--	542.50		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	--	1978.50		
	For Left Turn From Service Road		1	40.00	5.30	--	212.00		
	Service Road West Side		1	100.00	6.60	--	660.00		
							7321.75		
						Say	7322.00	19.98	146293.56
1.08	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregaters with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to acheive the deisred density, 50 / 75 mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack coat with lead upto 1km including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 with 60 / 70 grade bitumen	Cum							
	(P.No.172 I.No. 21.11.2 of PW,P&I WTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.05	99.24		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.05	79.50		
	Below Obligatory Span		1	40.00	8.85	0.05	17.70		
	At Junction		1	50.00	10.85	0.05	27.13		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.05	98.93		
	For Left Turn From Service Road		1	40.00	5.30	0.05	10.60		

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Service Road West Side		1	100.00	6.60	0.05	33.00		
							366.09		
						Say	366.50	6490.61	2378806.95
1.09	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications, MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&I WTD SR of 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	--	1984.75		
	Ch 1540 to Ch 1340		1	200.00	7.95	--	1590.00		
	Below Obligatory Span		1	40.00	8.85	--	354.00		
	At Junction		1	50.00	10.85	--	542.50		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	--	1978.50		
	For Left Turn From Service Road		1	40.00	5.30	--	212.00		
	Service Road West Side		1	100.00	6.60	--	660.00		
	Battery Limit								
	Towards Shivnagar 1st Main Road Jn.		1	100.00	18.60	--	1860.00		
	Towards Magadi Road		1	100.00	20.50	--	2050.00		
	Towards Basaveshwara Nagar		1	100.00	10.00	--	1000.00		
							12231.75		
						Say	12232.00	16.46	201328.93
1.10	KSRRB M500-17. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.0 to 4.5% by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.7 complete in all respects as per specifications. Bitumen 60/70 MoRT&H Specification No. 507	Cum							
	(P.No. 174 I.No.21.19.2 of PW,P&I WTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.05	99.24		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.05	79.50		
	Below Obligatory Span		1	40.00	8.85	0.05	17.70		
	At Junction		1	50.00	10.85	0.05	27.13		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.05	98.93		
	For Left Turn From Service Road		1	40.00	5.30	0.05	10.60		
	Service Road West Side		1	100.00	6.60	0.05	33.00		
	Battery Limit								
	Towards Shivnagar 1st Main Road Jn.		1	100.00	18.60	0.05	93.00		
	Towards Magadi Road		1	100.00	20.50	0.05	102.50		
	Towards Basaveshwara Nagar		1	100.00	10.00	0.05	50.00		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
							611.59		
						Say	612.00	8856.14	5419957.92
1.11	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWTDR of 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	--	1984.75		
	Ch 1540 to Ch 1340		1	200.00	7.95	--	1590.00		
	Below Obligatory Span		1	40.00	8.85	--	354.00		
	At Junction		1	50.00	10.85	--	542.50		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	--	1978.50		
	For Left Turn From Service Road		1	40.00	5.30	--	212.00		
	Service Road West Side		1	100.00	6.60	--	660.00		
	Battery Limit								
	Towards Shivanagar 1st Main Road Jn.		1	100.00	18.60	--	1860.00		
	Towards Magadi Road		1	100.00	20.50	--	2050.00		
	Towards Basaveshwara Nagar		1	100.00	10.00	--	1000.00		
	Cross Roads								
	Ch 1720, 1540, 1480, 1600		4	50.00	6.00	--	1200.00		
	Ch 1620, 1360, 1280		3	50.00	5.50	--	825.00		
							14256.75		
						Say	14257.00	16.46	234658.81
1.12	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum							
	(P.No.175 of I.No.21.22.4 in PW,P&IWTDR S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.04	79.39		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.04	63.60		
	Below Obligatory Span		1	40.00	8.85	0.04	14.16		
	At Junction		1	50.00	10.85	0.04	21.70		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.04	79.14		
	For Left Turn From Service Road		1	40.00	5.30	0.04	8.48		
	Service Road West Side		1	100.00	6.60	0.04	26.40		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Battery Limit								
	Towards Shivanagar 1st Main Road Jn.		1	100.00	18.60	0.04	74.40		
	Towards Magadi Road		1	100.00	20.50	0.04	82.00		
	Towards Basaveshwara Nagar		1	100.00	10.00	0.04	40.00		
	Cross Roads		0	0.00	0.00	0.04			
	Ch 1720, 1540, 1480, 1600		4	50.00	6.00	0.04	48.00		
	Ch 1620, 1360, 1280		3	50.00	5.50	0.04	33.00		
							570.27		
						Say	570.50	11208.63	6394522.73
									20753513.82
	Miscellaneous and Rounding off								486.18
								TOTAL	20754000.00

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
2.00	DRAIN WORKS								
	a) For Road side Drains								
2.01	KSRRB M300-11. Excavation for road way in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 meters (average lead 50 meters), including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections complete as per specifications. MoRT&H Specification No. 301	Cum							
	(P.No.150, I.No.19.11 of PW, P & IWT D S.R 2011-12)								
	Road side Drain								
	LHS Ch 1800 - 1240		1	510.00	1.10	1.35	757.35		
	RHS Ch 1800 - 1240		1	517.00	1.10	1.35	767.75		
	Towards Basaveshwara Nagar		2	100.00	1.10	1.35	297.00		
	Cross Roads		2X7	50.00	1.10	1.35	1039.50		
	For Catch Drain		123	0.70	0.80	0.80	54.97		
	For Rain water Harvesting	1	37	2.00	0.50	2.05	74.91		
							2991.47		
						Say	2991.50	70.32	210358.69
2.02	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW, P&IWT D S.R 2011-12)								
	For Drain Bed								
	Road side Drain								
	LHS Ch 1800 - 1240		1	510.00	1.10	0.10	56.10		
	RHS Ch 1800 - 1240		1	517.00	1.10	0.10	56.87		
	Towards Basaveshwara Nagar		2	100.00	1.10	0.10	22.00		
	Cross Roads		2X7	50.00	1.10	0.10	77.00		
	For Catch Drain		123	0.70	0.80	0.10	6.87		
	For Rain water Harvesting	1	37	2.00	0.50	0.10	3.65		
							222.50		
						Say	222.50	3724.92	828794.70
2.03	KSRRB 2200-5.9. Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.227, I.No.28.7.9 of PW, P&IWT D SR 2011-12)								
	For Drain Bottom slab								
	LHS Ch 1800 - 1240		1	510.00	0.90	0.15	68.85		
	RHS Ch 1800 - 1240		1	517.00	0.90	0.15	69.80		
	Towards Basaveshwara Nagar		2	100.00	0.90	0.15	27.00		
	Cross Roads		2X7	50.00	0.90	0.15	94.50		
	For Catch Drain		123	0.60	0.70	0.20	10.31		
	For Rain water Harvesting	1	37	2.00	0.40	0.10	2.92		
	Side Walls								
	LHS Ch 1800 - 1240		2	510.00	0.15	1.00	153.00		
	RHS Ch 1800 - 1240		2	517.00	0.15	1.00	155.10		
	Towards Basaveshwara Nagar		4	100.00	0.15	1.00	60.00		
	Cross Roads		14x2	50.00	0.15	1.00	210.00		

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	For Catch Drain	1	123	0.40	0.20	0.30	2.94		
		2	123	0.70	0.20	0.30	10.31		
		1	123	2.00	0.10	0.20	4.91		
	Top Slab								
	LHS Ch 1800 - 1240		1	480.00	0.90	0.10	43.20		
	RHS Ch 1800 - 1240		1	487.00	0.90	0.10	43.83		
	Towards Basaveshwara Nagar		2	100.00	0.90	0.10	18.00		
							974.66		
						Say	975.00	4931.28	4807998.00
2.04	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTDR SR 2011-12)								
	Steel at 70 kg/cum		--	--	--	--	68.25		
						Say	68.50	68274.71	4676817.33
2.05	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per the directions of Engineer in-Charge.	Sqm							
	(Data Rate)								
	Drain Cover Slab								
	LHS Ch 1800 - 1240		1	30.00	0.90	--	27.00		
	RHS Ch 1800 - 1240		1	30.00	0.90	--	27.00		
	Towards Basaveshwara Nagar		2	10.00	0.90	--	18.00		
	Cross Roads		2X7	50.00	0.90	--	630.00		
	For Tree Surrounding		45	1.50	1.50	--	101.25		
							803.25		
						Say	803.50	1465.00	1177127.50
2.06	Providing and laying reinforced cement concrete pipe NP3 of 300mm dia for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour curing complete as per specifications. Specification No.KSRB 1000, 2300 MoRT&H Specification No. 1000 / 2300	Rmt							
	(Pg.No. 257, I.No. 34.6.1 of PW, P&IWTDR SR 2011-12)								
	For Catch Drain at 10m interval	1	123	1.60	--	--	196.32		
							196.50	1506.60	296046.90
2.07	KSSRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos.							
	P.No 229, I.No 28.10 of PW,P&IWTDR S.R 2011-12)								
	LHS Ch 1800 - 1240	1	52	--	--	--	52.00		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	RHS Ch 1800 - 1240	1	53	--	--	--	53.00		
	Towards Basaveshwara Nagar	2	11	--	--	--	22.00		
	Cross Roads	2X7	6	--	--	--	84.00		
							211.00		
						Say	211.00	148.23	31276.53
2.08	KSRRB 2100-6: Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers, wherever necessary watering and ramming, including cost of all materials, labour complete as per specifications. MoRT&H Chapter 12	Cum							
	P.No 221, I.No 27.14 of PW, P & IWTDR SR 2011-12)								
	For Rain water Harvesting	37	1	1.00	1.00	0.05	1.83		
						Say	2.00	1726.92	3453.84
2.09	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials, labour with all lead & lifts etc., complete as per drawing and technical specification 20mm nominal size	Cum							
	(Data Rate)								
	For Rain water Harvesting	37	1	1.00	1.00	0.075	2.74		
						Say	3.00	1194.00	3582.00
2.10	Providing & Filling of Boulders to required depth in drain trench including cost of all materials, labour with all lead & lifts etc., complete as per drawing and technical specification 40mm nominal size	Cum							
	(Data Rate)								
	For Rain water Harvesting	37	1	1.00	1.00	0.40	14.62		
						Say	15.00	894.00	13410.00
2.11	KSRRB 14.6-1: Providing & laying heavy duty cobble stones 75mm thick interlock pavers, using cement & 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 (Avg 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 specifications. Specification No. KBS	Sqm							
	(P.No.108 of I.No.14.7 in PW, P&IWTDR SR 2011-12)								
	Rainwater Harvesting	37	1	1.00	1.00	--	36.54		
	Footpath								
	LHS Ch 1800 - 1240	1	510.00	1.50	--	--	765.00		
	RHS Ch 1800 - 1240	1	517.00	1.50	--	--	775.50		
	Towards Basaveshwara Nagar	2	100.00	1.50	--	--	300.00		
	Between Service Road and Main Carriageway								
	LHS Ch 1800 - 1240	1	510.00	3.00	--	--	1530.00		
	RHS Ch.1800 - 1240	1	517.00	3.00	--	--	1551.00		
							4958.04		
						Say	4958.50	776.52	50374.42

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
2.12	M.S Grating for Catch Drains	Sqm							
	(Data Rate)		123	0.50	0.50	--	30.68		
						Say	31.00	8765.00	271715.00
2.13	KSRB 2.3: Filling available Excavated Earth (excluding rock) in sides of foundations upto plinth 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. Specification No.KBS 2.9	Cum							
	(P.No.6, I.No.2.10 of PW, P&IWTD S.R 2011-12)								
	LHS Ch 1800 - 1240		2	52.00	0.10	1.00	10.40		
	RHS Ch 1800 - 1240		2	53.00	0.10	1.00	10.60		
	Towards Basaveshwara Nagar		4	11.00	0.10	1.00	4.40		
	Cross Roads		4X7	6.00	0.10	1.00	16.80		
	For Catch Drain	3	123	0.50	0.10	0.70	12.88		
							55.08		
						Say	55.50	97.20	5394.60
2.14	Removing B. S. Slab of Drain and Stacking	Sqm							
	(P.No.28, I.No.5.32 of PW, P&IWTD S.R 2011-12)								
	Service Road West Side								
	Ch 1800 - 1440		1	360.00	1.20	--	432.00		
	Ch 1420 - 1240		1	180.00	1.50	--	270.00		
	Service Road East Side								
	Ch 1800 - 1550		1	250.00	1.20	--	300.00		
	Ch 1380 - 1280		1	100.00	1.20	--	120.00		
							1122.00		
						Say	1122.00	47.52	53317.44
2.15	Refixing stone slabs of drains and pointing in C.M.(1:3)	Sqm							
	(P.No.28, I.No.5.33 of PW, P&IWTD S.R 2011-12)								
	Qty same as		--	--	--	--	1122.00		
						Say	1122.00	59.40	66646.80
2.16	KSRB M100-4.1. Cost of Haulage including Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kanker / Moorum.Placing tipper at loading point, loading with front end loader,dumping , turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH-100/ Chapter 1 Case-I : Surface Road	Cum							
	(P.No.141&147, of PW, P&IWTD SR 2011-12)								
	Qty same as item no 2.01- 2.13								
	For 20Km Rs. 2 X 1.3 X 20 = (52.00 + 62.2)X1.08=123.34		1	2936.00	--	--	2936.00	123.34	3 62126.24
									16 58439.99
2.17	Miscellaneous and Rounding off								1560.01
									Total Cost of Road Side Drain
									16 60000.00

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
2b)	Culverts Across the Roads								
2.18	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTDR 2011-12)								
	8m Length								
	CH- 1620, 1280, 1360	3	1	8.00	1.30	1.60	49.92		
	10m Length								
	CH- 1620, 1720	2	1	10.00	1.30	1.60	41.60		
	12m Length								
	CH- 1500	1	1	12.00	1.30	1.60	24.96		
	15m Length								
	CH- 1540	1	1	15.00	1.30	1.60	31.20		
							147.68		
						Say	148.00	40.99	6065.93
2.19	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&IWTDR 2011-12)								
	8m Length								
	CH- 1620, 1280, 1360	3	1	8.00	1.30	0.10	3.12		
	10m Length								
	CH- 1620, 1720	2	1	10.00	1.30	0.10	2.60		
	12m Length								
	CH- 1500	1	1	12.00	1.30	0.10	1.56		
	15m Length								
	CH- 1540	1	1	15.00	1.30	0.10	1.95		
							9.23		
						Say	9.50	3724.92	35386.74
2.20	KSRRB 2200-5.18. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.227, I.No.28.7.18 of PW,P&IWTDR 2011-12)								
	Bottom slab								
	8m Length								
	CH- 1620, 1280, 1360	3	1	8.00	1.10	0.25	6.60		
	10m Length								
	CH- 1620, 1720	2	1	10.00	1.10	0.25	5.50		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	12m Length								
	CH- 1500	1	1	12.00	1.10	0.25	3.30		
	15m Length								
	CH- 1540	1	1	15.00	1.10	0.25	4.13		
							19.53		
	Sidewalks								
	8m Length								
	CH- 1620, 1280, 1360	3	2	8.00	0.25	1.00	12.00		
	10m Length								
	CH- 1620, 1720	2	2	10.00	0.25	1.00	10.00		
	12m Length								
	CH- 1500	1	2	12.00	0.25	1.00	6.00		
	15m Length								
	CH- 1540	1	2	15.00	0.25	1.00	7.50		
							35.50		
							Net Qty	55.03	
							Say	55.50	5489.64
									304675.02
2.21	KSRRB M2300-7.1. Furnishing and Placing Reinforced / Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D.RCC/PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case-I: Using Concrete Mixer. MORTH Specification No. 1500, 1600 & 1700 - Height upto 5m	Cum							
	P. No 236, I.No 29.13.1 of PW, P & IWTD SR 2011-12)								
	Covering slab								
	8m Length								
	CH- 1620, 1280, 1360	3	1	8.00	1.10	0.25	6.60		
	10m Length								
	CH- 1620, 1720	2	1	10.00	1.10	0.25	5.50		
	12m Length								
	CH- 1500	1	1	12.00	1.10	0.25	3.30		
	15m Length								
	CH- 1540	1	1	15.00	1.10	0.25	4.13		
							19.53		
							Say	20.00	5920.56
									118411.20
2.22	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTD SR 2011-12)								
	120kgs per Cum						9.06		
							Say	9.50	68274.71
									648609.70

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
2.23	KSSRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos.							
	P.No 229, I.No 28.10 of PW,P&IWT D S.R 2011-12)								
	8m Length								
	CH- 1620, 1280, 1360		6	--	--	--	6		
	10m Length								
	CH- 1620, 1720		5	--	--	--	5		
	12m Length								
	CH- 1500		3	--	--	--	3		
	15m Length								
	CH- 1540		4	--	--	--	4		
							18		
						Say	18.00	148.23	2668.14
2.24	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9	Cum							
	(Pg.No. 6, I.No. 2.10 of PW, P & IWT D S.R 2011-12)								
	8m Length								
	CH- 1620, 1280, 1360		3	2	8.00	0.10	1.50	7.20	
	10m Length								
	CH- 1620, 1720		2	2	10.00	0.10	1.50	6.00	
	12m Length								
	CH- 1500		1	2	12.00	0.10	1.50	3.60	
	15m Length								
	CH- 1540		1	2	15.00	0.10	1.50	4.50	
							21.30		
						Say	21.50	97.20	2089.80
2.25	KSRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder, Stone aggregates / Sand / Kankar / Moorum KSRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MoRT&H Chapter 1	Cum							
	Conveying up to 20km by Mechanical means.								
	(P. No.141&147 of PW, P & IWT D S.R 2011-12)								
	Qty same as item no 2.18, 2.24		--	--	--	--	126.50		
						Say	126.50	123.34	15602.51
									133509.04
									490.96
2.26	Miscellaneous & Rounding off								
								TOTAL	134000.00

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
2b)	Construction of Retaining Wall								
2.27	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)								
	(P.No. 220, I.No. 27.4 of PW, P & IWTD SR 2011-12)								
	Retaining Wall		1	150.00	1.58	1.35	318.94		
						Say	319.00	41.0	13074.53
2.28	KSRRB M100-4.2. Haulage of materials by tipper including cost of loading, unloading and stacking complete as per specifications. MoRTH Chapter 1 Case-I: Surface Road	Cum							
	(P. No.141&147 of PW, P&IWTD S.R 2011-12)								
	Qty same as item no 2.27								
	For 20Km Rs. 2.00 X 1.30 X 20 = (52.00 + 62.20)X1.08=122.47		--	--	--	--	319.00		
						Say	319.00	123.34	39345.46
2.29	KSRRB M 2200 5 - 1: M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.63cum and fine aggregates @ 0.42cum i) Upto 5m height.	Cum							
	(P.No. 226 I.No 28.7.1 of PW,P&IWTD SR 2011-12)								
	Retaining Wall		1	150.00	1.58	0.15	35.44		
						Say	35.50	3938.76	139825.98
2.30	KSRRB 2200-5.18. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.228, I.No. 28.7.18 of PW, P & IWTD SR 2011-12)								
	Retaining Wall								
	Bottom Slab		1	150.00	0.875	0.20	26.25		
	Stem		1	150.00	0.20	1.00	30.00		
							56.25		
						Say	56.50	5489.64	310164.66
2.31	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No. 28.8 of PW, P&IWTD SR 2011-12)								
	Qty same as item no 2.24								
	Considering 125kg/cum		--	--	--	--	7.06		
						Say	7.50	68274.71	12060.29

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
2.32	KSRB M2300 2.2: Furnishing and Placing Reinforced / Prestressed Cement Concrete in Super-structure as per drawing and technical specification complete as per specifications. A. RCC- with OPC cement design mix M20 @ 320kgs, with 20mm and down size graded granite metal, coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum; with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case-II: Using Batching Plant, Transit Mixer & Concrete Pump, MORTH Specification No. 1500, 1600 & 1700 - i) Upto 5m height.	Cum							
	(P.No 233 I.No 29.4.1 of PW,P&IWTDR SR 2011-12)								
	Area of Crash Barrier = 0.386 Sqm		1	150.00	0.386		57.90		
						Say	58.00	5282.28	306372.24
2.33	KSRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super - structure complete as per drawing and technical specifications complete as per specifications MORTH Specification No. 1600	MT							
	(P.No.241, I.No.29.29 of PW, P&IWTDR S.R 2011-12)								
	Considering 125kg/cum		--	--	--	--	7.25		
						Say	7.50	69013.85	517603.85
2.34	KSRB M2200-9. Providing and laying Filter Media with granular materials / stone crushed aggregates satisfying the requirements laid down in clause 2500.4.2.2. of MORTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification complete as per specifications MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.13 of PW,P&IWTDR S.R 2011-12)								
	For Retaining Wall		1	150.00	0.40	1.00	60.00		
						Say	60.00	665.28	39916.80
2.35	KSRB M2200 - 8.1. Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification complete as per specifications. A. Granular Material MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.11 of PW,P&IWTDR S.R 2011-12)								
	For Retaining Wall		1	150.00	0.40	1.00	60.00		
						Say	60.00	275.4	16524.00

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
2.36	KSSRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical Specifications complete as per specifications. MORTH Specification No. 2706 & 2200	Nos.							
	P.No 229, INo 28.10 of PW,P&I WTD S.R 2011-12)								
	Retaining Wall		67	0.30	--	--	20.00		
						Say	20.00	148.23	2964.60
2.37	KSSRB 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	Sqm							
	(P.No.191, I.No. 24.1 of PW,P&I WTD SR 2011-12)								
	Crash Barrier		1	150.00	--	2.30	345.00		
						Say	345.00	48.492	16729.74
									1914582.16
2.38	Miscellaneous and Rounding off								5417.84
								TOTAL	1920000.00
3.00	Median, Kerb & Re - Construction of Retaining Wall along Service Road								
3.01	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete Size 450 x 200 x 400 mm	No.							
	(P.No.28, I.No.5.29.1 of PW,P&I WTD S.R 2011-12)								
	For Road Kerb								
	From Ch 1800 - 1240		2	560.00	--	0.45	2489.00		
	Service Road								
	LHS		1	510.00	--	0.45	1133.00		
	RHS		1	517.00	--	0.45	1149.00		
	Towards Magadi Road Jn. up to Abutment		1	96.00	--	0.45	213.00		
	Towards Shivnagar 1st main Road Jn. up to Abutment		1	56.00	--	0.45	124.00		
	Towards Basaveshwara Nagar		2	100.00	--	0.45	444.00		
	For Median Kerb								
	At Junction		2	110.00	--	0.45	489.00		
	Towards Magadi Road Jn.		2	100.00	--	0.45	444.00		
	Towards Shivnagar 1st main Road Jn.		2	100.00	--	0.45	444.00		
							6929.00	290.52	13013.08
	Re Construction of Retaining Wall along Service Road								

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
3.02	KSRB 2 - 2.1: Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m. and above in width, in ordinary soil not exceeding 1.5m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. Specification No. KBS 2.1(a) / 2.3.5	Cum							
	(P.No.5, I.No.2.3 of PW, P & IWT D S.R 2011-12)								
	Retaining wall		1	160.00	0.90	1.05	151.20		
						Say	151.50	144.72	21925.08
3.03	KSRB 4-1.3: Providing and laying in position plain cement concrete of mix M7.5 with OPC cement @180kgs, with 40mm and down size graded granite metal coarse aggregates 0.85cum and fine aggregates @0.57cum machine mixed, concrete laid in layers not exceeding 15 cms.thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2	Cum							
	(P.No.12, I.No.4.3 of PW, P&IWT D S.R 2011-12)								
	Retaining wall		1	160.00	0.90	0.15	21.60		
						Say	22.00	3799.44	83587.68
3.04	KSRB 5.2-3: Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. Specification No. KBS 5.1.13.	Cum							
	(P.No.25, I.No.5.6 of PW, P&IWT D S.R 2011-12)								
	For Retaining Wall								
	1st Footing		1	160.00	0.75	0.225	27.00		
	2nd footing		1	160.00	0.60	0.45	43.20		
							70.20		
						Say	70.50	2773.44	195527.52
3.05	KSRB 5.3-3: Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. Specification No. KBS 5.1.13.	Cum							
	(P.No.26, I.No.5.9 of PW, P&IWT D S.R 2011-12)								
	For Retaining Wall		1	160.00	0.45	2.00	144.00		
						Say	144.00	3246.48	467493.12

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
3.06	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix M15 with cement @240kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms.thick well compacted in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No.KBS 4.1.4.2	Cum							
	(P.No.12, I.No 4.6 of PW, P&IWT S.R 2011-12)								
	For Plinth at Basement Lvl		1	160.00	0.45	0.10	7.20		
	At Top Coping		1	160.00	0.45	0.10	7.20		
							14.40		
						Say	14.50	4275.72	61997.94
3.07	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9	Cum.							
	(Pg.No. 6, I.No. 2.10 of PW, P & IWT S.R 2011-12)								
	For foundation								
	Same as Qty of Item No.3.43 - I.No.3.44 & 3.45		--	--	--	--	59.00		
						Say	59.00	97.20	5734.80
3.08	KSRRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder / Stone aggregates / Sand /Kankar / Moorum KSRRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MoRT&H Chapter 1	Cum							
	Conveying up to 20km by Mechanical means.								
	(Page No.141&147 of PW, P & IWT S.R 2011-12)								
	Qty same as item no 3.26-3.34		--	--	--	--	92.50	123.34	11408.95
									2860688.17
	Miscellaneous and Rounding off								311.83
								TOTAL	2861000.00

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
4.00	ROAD FURNITURE & OTHER WORK								
4.01	KSRS M800 - 13. Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface: - Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.	Sqm							
	(P.No.193, I.No.24.15 of PW,P&I WTD,2011-12)								
	On Flyover								
(a)	Lane Marking line		1	360.00	0.15	--	54.00		
(b)	Edge line		2	360.00	0.20	--	144.00		
(c)	Directional arrows		4	5.00	0.90	--	18.00		
	On Surface								
(a)	Lane Marking line		4	540.00	0.15	--	324.00		
			2	100.00	0.15	--	30.00		
	Towards Basaveshwara Nagar		2	100.00	0.15	--	30.00		
(b)	Edge line								
			6	540.00	0.15	--	486.00		
			4	100.00	0.15	--	60.00		
	Towards Basaveshwara Nagar		2	100.00	0.15	--	30.00		
(c)	Pedestrian crossings		2	40.00	0.15	--	12.00		
			1	10.00	0.15	--	1.50		
			90	3.00	0.50	--	135.00		
(d)	Directional arrows		20	5.00	0.90	--	90.00		
							1414.50		
						Say	1414.50	429.84	608008.68
4.02	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	Sqm							
	(P.No.191, I.No. 24.1 of PW,P&I WTD SR 2011-12)								
	For Kerb Painting								
	For Road Kerb								
	LHS		1	510.00	--	0.60	306.00		
	RHS		1	517.00	--	0.60	310.20		
	Towrads Magadi Road Jn. up to Abutment		1	96.00	--	0.60	57.60		
	Towrads Shivnagar 1st main Road Jn. up to Abutment		1	56.00	--	0.60	33.60		
	Towards Basaveshwara Nagar		2	100.00	--	0.60	120.00		
	For Median Kerb						0.00		
	At Junction		2	110.00	--	0.60	132.00		
	Towrads Magadi Road Jn.		2	100.00	--	0.60	120.00		
	Towrads Shivnagar 1st main Road Jn.		2	100.00	--	0.60	120.00		
							1199.40		
						Say	1199.50	48.49	58166.15

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
4.03	Road Delinators								
	KSRRB M800-15. Road Delinators: Supplying and Installation of delineators (road way indicators, hazard markers, object markers), 80 - 100 cm high above ground level, painted black and white in 15 cm wide strips, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC - 79 and the drawings complete as per specifications. MORTH Specification No. 805.	Each							
	(P.No.194, I.No.24.19 of PW,P&IWTD SR 2011-12)								
	For Every 5m interval								
	On Surface Road		50	--	--	--	50.00		
						Say	50.00	365.04	18252.00
4.04	KSRRB M800-2. Retro-Reflectorised Traffic Signs: Providing and fixing of Retro-reflectorised cautionary, mandatory, informatory sign as per IRC:67 made of high intensity grade sheeting vide clause 800.1.3, fixed over Aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75mm x 75mm x 6mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45cm x 45cm x 60cm, 60cm below ground level as per approved drawing complete as per specifications. MORTH Specification No. 801.								
	(P.No.191, I.No.24.2 of PW,P&IWTD SR 2011-12)								
	(i) 60cm circular								
	a) No parking board	Each	15	--	--	--	15.00		
	b) Speed limit board	Each	10	--	--	--	10.00		
	c) Compulsary ahead or left turn	Each	6	--	--	--	6.00		
	d) Overtaking prohibited board	Each	10	--	--	--	10.00		
	e) No stopping sign board	Each	12	--	--	--	12.00		
							53.00	2539.08	134571.24
	(ii) 90cm equilateral triangle								
	a) Pedestrian crossing sign boards	Each	6	--	--	--	6.00		
	b) No Pedestrian crossing sign boards	Each	6	--	--	--	6.00		
							12.00	2924.64	35095.68
	(iii) Informatory sign boards								
	(a) 90cm high octagon	Each	6	--	--	--	6.00	3632.04	21792.24
4.05	KSRRB M800-20. Tubular Steel Railing on Medium Weight Steel Channel (ISMC Series) 100 mm x 50mm: - Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50mm, 1.2 metres high above ground, 2 m centre to centre, complete as per approved drawings as per specifications. MORTH Specification No. 808.	Rmt							
	(P.No.194, I.No.24.24 of PW,P&IWTD SR 2011-12)								
			1	523.00	--	--	523.00		
			1	523.00	--	--	523.00		
			2	100.00	--	--	200.00		
							1246.00	1246.32	152914.72

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
4.06	KSRRB M800-35 Providing and fixing of road stud 100 x 100 mm, die cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphalatic surface by drilling hole 30 mm upto a depth of 60mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4: 1973 complete as per specifications.	Nos.							
	(P.No.197, I.No.24.41 of PW,P&IWTDR SR 2011-12)								
	Spaced at Five meter interval								
	For Every 5m Interval								
	L=360 X 3 = 1080m								
	No's = 1080/5 = 216		216	--	--	--	216		
	on Surface								
	L=300*6 + 360*3=2880m								
	No's = 2880/5 = 456		576	--	--	--	576		
							792	290.52	230091.84
4.07	Providing Over head Gantry	As per Sub		1.00	--	--	1.00	1587593.57	1587593.57
4.08	Providing Cantilever Gantry	As per Sub		2.00	--	--	2.00	266173.64	532347.27
									4778833.39
4.09	Miscellaneous and Rounding off								166.61
								TOTAL	4779000.00
5.00	FLYOVER WORKS								
5.01	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTDR SR 2011-12)								
	a. Foundation for Standard Span pier		3	5.50	5.50	1.95	176.96		
	b. Foundation for Obligatory Span pier		2	8.70	5.70	1.95	193.40		
							370.36		
						Say	370.50	45.08	16703.84
5.02	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&IWTDR S.R 2011-12)								
	a. Foundation for Standard Span pier		3	4.50	4.50	0.15	9.11		
	b. Foundation for Obligatory Span pier		2	7.70	4.70	0.15	10.86		
							19.97		
						Say	20.00	3724.92	74498.40

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
5.03	KSRRB 1100 - 3.1 - Bored cast - in - situ RCC Pile with OPC cement design mix M-35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008, excluding Reinforcement complete as per Drawing and Technical Specifications and removal of excavated earth with all lifts and lead upto 1000m complete as per specifications.	Rmt							
a	KSRRB M1100-3.2 B. Pile Diameter = 1000mm, MORTH specifications No. 1100, 1600 & 1700 (P.No.201, I.No.25.4 of PW,P&I WTD S.R 2011-12)		12	1m f	--	15.00	180.00	7701.48	1386266.40
b	KSRRB M1100-3.3 C. Pile Diameter = 1200mm, MORTH specifications No. 1100 & 1700 (P.No.201, I.No.25.5 of PW,P&I WTD S.R 2011-12)								
			12	1.20m f	--	15.00	180.00	9933.84	1788091.20
5.04	(A) Doing Initial vertical load test for a design pile load of 270 Tons including cost of all equipment, men and material, reaction piles etc (if required) required for the setup complete as per drawing and technical specification and as directed by the Engineer in Charge.	Nos							
	(P.No.150, I.No.12.37(a) of NHSR 2009-10)		3	--	--	--	3.00	171720.00	515160.00
	(B) Doing Horizontal load test for a design pile load of 20 Tons including cost of all equipment, men and material, reaction piles etc (if required) required for the setup complete as per drawing and technical specification and as directed by the Engineer in Charge.	Nos							
	(P.No.150, I.No.12.37(b) of NHSR 2011-12)		3	--	--	--	3.00	212000.00	636000.00
5.05	KSRRB M1200-47: Providing steel liner 10mm thick for curbs and 6mm thick for seining of wells including fabricating and setting out as per detailed drawing complete as per specifications. MORTH Specifications No.1200 & 1900	MT							
	(P.No.217, I.No.26.125 of PW,P&I WTD S.R.2011-12)								
			12	8.00	0.148	--	14.21		
			12	8.00	0.178	--	17.05		
							31.25		
						Say	31.50	65134.80	2051746.20
5.06	KSRRB M1100 - 11.2 Cement Concrete for Reinforced Concrete in Pile Cap complete as per Drawing and Technical Specification complete as per specifications. D.RCC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008. Case - II: Using Batching Plant, Transit Mixer and Concrete Pump. MORTH Specification No. 1100, 1500 & 1700.								
	(P.No.203, I.No.25.25 of PW,P&I WTD S.R 2011-12)								

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	a. Foundation for Standard Span pier	Cum	3	4.30	4.30	1.50	83.21		
	b. Foundation for Obligatory Span pier		2	7.50	4.50	1.50	101.25		
							184.46		
						Say	184.50	4990.68	920780.46
5.07	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTD SR 2011-12)								
	For Piles & Pile Cap - 100kg/cum		--	--	--	--	53.01		
						Say	53.50	68274.71	3652696.75
5.08	KSRRB 2200-5.18. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.68cum and fine aggregates @ 0.45cum, with superplastisier @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.228, I.No.28.7.18 of PW, P& IWTD SR 2011-12)								
	Peir			Area					
	Standard Span Peir		3	1.77		3.06	16.23		
	Obligatory Peir		2	1.77		3.20	11.33		
	Standard Span Peir Beam		3	5.50	1.75	0.50	14.44		
	Trapizoidal Area=2.95Sq		3	1.75	2.95		15.49		
	Obligatory Peir Beam		2	5.50	1.75	0.50	9.63		
	Trapizoidal Area=2.95Sq		2	1.75	2.95		10.33		
	Pedestal								
	Standard Span		6	1.75	0.80	0.30	2.52		
	Obligatory Span		4	1.75	0.80	0.30	1.68		
							81.63		
						Say	82.00	5489.64	450150.48
5.09	KSRRB 2300 - 11.3. Furnishing and Placing Reinforced / Prestressed cement concrete in super structure as per drawing and Technical Specification complete as per specifications. F. PSC with OPC cement design mix M45 @ 440kgs, with 20mm and down size graded granite metal coarse aggregates @ 4lts confirming to IS9103-1999 Reaffirmed-2008 MORTH Specification No.1500, 1600 & 1700- Height 5m to 10m	Cum							
	(P.No.240 I.No.29.26.2 of PW,P&IWTD S.R 2011-12)		--	--	--	--	215.00		
	Considering 215 Cum of volume for 30m					Say	215.00	7434.72	598464.80
5.10	KSRRB M2700-9. Providing, precasting, transportation and placing in position precast post tensioned concrete girders as per drawing and technical specifications complete as per specifications. MoRT&H Specification No.1800 & 2300	Cum							
	(P.No.251, I.No.32.9 of PW,P&IWTD S.R 2011-12)								
	Considering 12.75 cum of volume for Each girder								
	In each span 4 Girders								
	Girder		12	12.75			153.00	19427.04	272337.12

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5.11	KSRRB M2300-10.2. Furnishing and Placing Reinforced / Prestressed cement concrete in super - structure as per drawing and Technical Specification complete as per specifications. RCC with OPC cement design mix M-40 @ 420kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.67cum and fine aggregates @ 0.44 cum with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 Case - II: Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500, 1600 & 1700, Height 5m to 10m	Cum							
	(P.No.239, I.No.29.22.2 of PW,P&IWT S.R 2011-12)								
	Deck slab		1	60.00	8.50	0.25	127.50		
	End Diaphragm		6	7.50	0.75	1.80	60.75		
	Crash Barrier								
	Area of Crash Barrier = 0.386 Sqm		2	90.00	0.386		69.48		
							257.73		
						Say	258.00	6299.64	1625307.12
5.12	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWT S.R 2011-12)								
	Considering 180kg/cum for Pier		--	--	--	--	4.96		
	Considering 250kg/cum for Pier Beam		--	--	--	--	12.47		
	Considering 150kg/cum for Pedestal		--	--	--	--	0.63		
							18.06		
						Say	18.50	68274.71	1263082.05
5.13	KSRRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super - structure complete as per drawing and technical specifications complete as per specifications MORTH Specification No. 1600 Super structure	MT							
	(P.No.241, I.No.29.29 of PW, P&IWT S.R 2011-12)								
	Considering 150kg/cum for Slab and Girder		--	--	--	--	42.08		
	Considering 250kg/cum for End Diaphragm		--	--	--	--	15.19		
	Considering 180kg/cum for Box Girder		--	--	--	--	38.70		
	Considering 150kg/cum for Crash Barrier		--	--	--	--	10.42		
							106.38		
						Say	106.50	69013.85	7349974.68
5.14	KSRRB M2300 - 15. High tensile steel wires / strands including all accessories for stressing, stressing operations and grouting complete as per drawing and Technical Specifications complete as per specifications MORTH Specification No. 1800	MT							
	(P.No.241 I.No.29.30 of PW,P&IWT S.R 2011-12)								
	Considering 60kg/cum for Box Girder		--	--	--	--	12.90		
	Considering 725kg/Girder for Standard Span		--	--	--	--	8.70		
							21.60		
						Say	22.00	159100.2	500204.40

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5.15	KSRRB M2200-15: Supplying, fitting and fixing in position true to line and level POT - PTFE bearings consisting of a metal piston supported by a disc or unreinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel making surface complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements to be as per IRC: 83 Part I and II respectively and other parts conforming to BS: 5400, section 9.1 and 9.2 and clause 2000.6 of MORTH Specification complete as per drawing and approved Technical specifications complete as per specifications. MORTH Specification No.2000 & 2200.								
	(P.No.230, I.No.28.19 of PW,P&IWT D S.R 2011-12)								
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity	Nos.	--	--	--	--	1.00	110484	110484.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity	Nos.	--	--	--	--	3.00	66290.40	198871.20
5.16	KSRRB M2200 -12: Supplying, fitting & fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel complete including all accessories as per drawings and Technical specifications and BS: 5400, section 9.1 & 9.2 (for PTFE) and clause 2000.4 of MORTH specifications, complete as per specifications. MORTH Specifications No.2000 & 2200	Nos.							
	(P.No.230, I.No.28.16 of PW,P&IWT D S.R 2011-12)								
	a) Guided/ free PTFE bearings 300MT vertical		--	--	--	--	3.00	344736.00	1034208.00
	b) Guided/ free PTFE bearings 180MT vertical		--	--	--	--	9.00	206841.60	1861574.40
5.17	KSRRB M2600-9. Providing and laying of a strip seal Expansion joint catering of maximum horizontal movement upto 70 mm, complete as per approved drawings and standard specifications to be installed by the manufacturer / supplier or their authorised representative ensuring compliance to the manufacturer's instructions for installation complete as per specifications. MORTH Specification No. 2607	Rmt							
	(P.No. 247, I.No.31.9 of PW,P&IWT D S.R 2011-12)		5	8.50	--	--	42.50	15675.12	666192.60
5.18	Anti carbonate painting with approved colour as per specifications including cost of materials, labour etc., complete as per specifications and as directed by the Engineer in Charge.	Sqm							
	(Market rate)								
	Obligatory Span								
	Bottom slab		1	30.00	7.05	--	211.50		
	Sides including Crash Barrier		2	30.00	--	5.05	303.00		
	Viaduct								
	Bottom slab		1	60.00	7.50	--	450.00		
	Haunches & Vertical ribs		8	60.00	--	1.80	864.00		
	Crash Barrier		2	60.00	--	2.30	276.00		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs
				m	m	m			
	Pier at Standard span		3	4.71		3.06	43.22		
	Pier Beam at Standard span		6	5.70		--	34.20		
			6	1.75		2.50	26.25		
	Pier at Obligatory span		2	4.71		3.20	30.16		
	Pier Beam at Obligatory span		4	5.70		--	22.80		
			4	1.75		2.50	17.50		
							2278.63		
						Say	2279.00	200.00	455800.00
5.19	KSRRB M500-10. Tack Coat: Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom complete as per specifications. MORTH specification No.503	Sqm							
	(P.No. 172 I.No.21.10.1 of PW,P&I WTD S.R 2011-12)								
	Fly over section		1	90.00	7.50	--	675.00		
						Say	675.00	11.08	7479.54
5.20	KSRRB M2700-1. Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005 cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces is not less than 100deg. C, protruding 1 mm to 4 mm over mastic surface, complete as per clause 5100.5 complete as per specifications. MORTH Specification No. 515 & 2702	Sqm							
	(P.No.250, I.No.32.1 of PW,P&I WTD S.R 2011-12)								
	Fly over section		1	90.00	7.50	--	675.00		
						Say	675.00	238.68	161109.00
5.21	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MoRT&H/ Chapter 5	Sqm							
	(P.No.173 I.No.21.7 of PW,P&I WTD SR of 2011-12)								
	Fly over section		1	90.00	7.50	--	675.00		
						Say	675.00	16.46	11109.96

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5.22	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100 - 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum.							
	(P.No.175 of I.No.21.22.4 in PW,P&IWT D S.R 2011-12)								
	Fly over section								
			1	90.00	7.50	0.04	27.00		
						Say	27.00	11208.63	302632.98
5.23	KSRRB M2700-5. Drainage Spouts complete as per drawing and Technical specification complete as per specifications. MORTH Specification No. 2705	No.							
	(P.No.250, I.No.32.5 of PW,P&IWT D S.R 2011-12)								
	At 8m interval on both sides		2	11	--	--	23	1216.08	27361.80
5.24	KSRRB 13-9.1: Providing and fixing to wall, ceiling and floor, high density polythylene pipes 6.00 kgf/sq.cm working pressure 160mm outside diameter with special Flange, compression type fittings, wall clips, making good the wall, ceiling and floor including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No. KBS 13.2.15.2/13.9	m							
	(Market Rate)								
	PVC Pipe for rain water disposal		2	122	--	--	244.00	1480.00	361120.00
5.25	KSRRM M2700-4. Providing fitting and fixing mild steel railing complete as per drawing and technical Specification. Complete as per MORTH Specification No. 2703.2, 1900	m							
	(P.No. 250, I.No. 32.4 of PW, P & IWT D S.R 2011-12)		2	90.00	--	--	180.00	2762.64	497275.20
5.26	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9	Cum.							
	(Pg.No. 6, I.No. 2.10 of PW, P & IWT D S.R 2011-12)								
	For foundation								
	Same as Qty of Item No.5.01-5.02-5.06		--	--	--	--	166.00		

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
						Say	166.00	97.20	16135.20
5.27	KSRRB M100-4.2. Haulage of materials by tipper including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I : Surface Road	Cum							
	(P. No.141&147 of PW, P&IWTD S.R.2011-12)								
	Qty same as item no 5.01-5.26								
	For 20Km RS. 2.00 X 1.3 X 20 = (52.00+ 62.20)X1.08=123.34								
			1	199.50	--	--	199.50	123.34	24606.33
									35537424.12
5.28	Miscellaneous & Rounding off								575.88
								TOTAL	35538000.00

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
6.00	FLYOVER APPROACHES WORKS								
6.01	KSRRB M2100 - 1.1. Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. I. Ordinary Soil - A. Manual Means (i) Depth upto 3m. MORTH Specification No. 304	Cum							
	Add 10% extra for dewatering charges								
	(P.No.220, I.No.27.1 of PW,P&IWT S.R 2011-12)								
	R.E Wall		2	208.39	1.50	1.50	937.76		
			2	59.84	1.50	1.50	269.28		
			2	8.50	1.50	1.50	38.25		
							1245.29		
						Say	1245.50	95.87	119408.08
6.02	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&IWT S.R 2011-12)								
	a. R.E Wall		2	208.39	1.50	0.15	93.78		
			2	59.84	1.50	0.15	26.93		
			2	8.50	1.50	0.15	3.83		
	b. Friction Slab		2	208.39	2.00	0.15	125.03		
			2	59.84	2.00	0.15	35.90		
	c. Approach Slab		2	8.50	4.00	0.15	10.20		
							295.67		
						Say	296.00	3724.92	1 102576.32
6.03	KSRRB M2100 - 17.1. Plain / Reinforced Cement Concrete design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.70cum and fine aggregates @ 0.47cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008, Open Foundation complete as per Drawing and Technical Specifications Case - 1: Using Concrete Mixer. MORTH Specification No. 1500, 1700 & 2100.	Cum							
	(P.No. 223, I.No.27.30 of PW,P&IWT S.R 2011-12)								
	R.E Wall		2	208.39	1.40	0.30	175.05		
			2	59.84	1.40	0.30	50.27		
			2	8.50	1.40	0.30	7.14		
							232.45		
						Say	232.50	4878.36	1 34218.70

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
6.04	KSRRB M2300- For T-Beam and slabs, including launching of precast girder by launching truss upto 40m span.								
	KSRRB M2300-10.2. Furnishing and Placing Reinforced / Prestressed cement concrete in super structure as per drawing and Technical Specification complete as per specifications. RCC with OPC cement design mix M40 @ 420kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.67cum and fine aggregates @ 0.44cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008 Case-II: Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500, 1600 & 1700, Height 5m to 10m	Cum							
	(P.No.239, I.No.29.22.2 of PW,P&IWT D S.R 2011-12)								
	Friction Slab		2	208.39	2.00	0.40	333.42		
			2	59.84	2.00	0.40	95.74		
	Approach Slab		2	8.50	4.00	0.30	20.40		
	Area of Crash Barrier = 0.386 Sqm		2	268.23	0.386		207.07		
							656.64		
						Say	657.00	6299.64	4138863.48
6.05	KSRRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super structure complete as per drawing and technical specifications complete as per specifications MORTH Specification No. 1600 Super structure	MT							
	(P.No.241, I.No.29.29 of PW, P&IWT D S.R 2011-12)								
	Considering 150kg/cum		--	--	--	--	133.37		
						Say	133.50	69013.85	9213348.55
6.06	KSRRB M2200 - 8.1. Back filling behind abutment, wing wall and return wall complete as per drawing and Technical Specification complete as per specifications. A. Granular material MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.227, I.No.28.11 of PW,P&IWT D S.R 2011-12)								
	R E wall		2	208.39	1.20	1.05	525.14		
			2	59.84	1.20	1.05	150.80		
			2	8.50	1.20	1.05	21.42		
							697.36		
						Say	697.50	275.40	192091.50
6.07	Providing, casting, erection and assembling of 180 mm thick pre-cast RCC fascia panel of M35 grade aesthetically finished cruciform shape mechanically stabilized reinforced earth wall to the required line, grade and cross sections with hot dip high adherence strips and panel lugs of required length having width and thickness of 40 x 5mm at	Sqm							

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	specified interval. Panels are to be seated in each other using two numbers EPDM rubber seating pad per panel. vertical joints should be covered with Gec-textile filter cloth glued to the panel and horizontal joints to be provided with 25 mm dia. polyethylene foam joint filler, 160 mm dia. PVC pipe of 10 Kg./cm2 wrapped with non woven geo textile with perforation of 5mm dia. at staggered intervals of 10 cm c/c etc., complete as per approved drawing and specification including cost of hot dip high adherence strip, legs, geo-textile cloth, EPDM pad, polyethylene foam, joint fillers, tie strips, fasteners and all accessories, coping beam(if any), drainage layer, drain pipe etc cost of all materials, form work, cost of HYSD reinforcement steel and fabrication design with all lead and lift, loading, unloading, stacking, hire charges of machineries as approved by the Engineer Member.								
	(Market Rate)								
	for RE walls on the sides		2	208.39	--	4.56	1900.52		
			2	59.84	--	3.77	451.19		
	for RE walls behind abutments		1	8.50	--	7.77	66.05		
			1	8.50	--	6.19	52.62		
							2470.37		
						Say	2470.50	5500.00	13587750.00
6.08	KSSRB M2200 - 9. Providing and laying Filter Media with granular materials / stone crushed aggregates satisfying the requirements laid down in clause 2500.4.2.2. of MORTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification complete as per specifications MORTH Specification No. 710.1.4 of IRC: 78 & 2200	Cum							
	(P.No.229, I.No.28.13 of PW,P&IWT D S.R 2011-12)								
			2	208.39	0.60	4.06	1015.28		
			2	59.84	0.60	3.27	234.81		
							1250.09		
						Say	1250.50	665.28	831932.64
6.09	KSSRB M300.53. Construction of embankment with approved material Gravel / Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications. (which includes cost of gravel / murrum, watering charges & compaction by vibratory roller) MORTH Specification No. 305	Cum							
	(P.No.156, I.No.19.60 of PW,P&IWT D S.R 2011-12)								
			1	208.39	7.50	4.06	6345.48		
			1	59.84	7.50	3.27	1467.58		
							7813.05		
						Say	7813.50	146.88	147646.88

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
6.10	KSRRB M400-7 Construction of granular sub-base by providing coarse graded material, spreading 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 specifications. For Coarse graded granular sub-base material as per 400-2 For Grading I Material.	Cum							
	(P.No.164, I.No.20.6.1 of PW,P&IWTD S.R 2011-12)								
			1	208.39	7.50	0.20	312.59		
			1	59.84	7.50	0.20	89.76		
							402.35		
						Say	402.50	1050.84	422963.10
6.11	KSRRB M400-17. Providing laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water, at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per Specifications. MORTH Specification No. 406.	Cum							
	(P.No.166, I.No.20.18 PW,P&IWTD S.R 2011-12)								
			1	208.39	7.50	0.25	390.73		
			1	59.84	7.50	0.25	112.20		
							502.93		
						Say	503.00	1060.56	533461.68
6.12	KSRRB M500-6. Providing and applying Primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502	Sqm							
	(P.No.171, I.No.21.6 of PW,P&IWTD S.R 2011-12)								
			1	208.39	7.50	--	1562.93		
			1	59.84	7.50	--	448.80		
							2011.73		
						Say	2012.00	40.59	81659.84
6.13	KSRRB 500-8 Providing and applying tack coat on granular surface treated with primer at 3 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No. 172 I.No.21.8 of PW,P&IWTD S.R 2011-12)								
			1	208.39	7.50	--	1562.93		
			1	59.84	7.50	--	448.80		
							2011.73		
						Say	2012.00	19.98	40199.76

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
6.14	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregaters with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to acheive the deisred density, 50 / 75 mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack coat with lead upto 1km including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 with 60 / 70 grade bitumen	Cum							
	(P.No.172 I.No. 21.11.2 of PW,P&IWT D S.R 2011-12)								
			1	208.39	7.50	0.075	117.22		
			1	59.84	7.50	0.075	33.66		
							150.88		
						Say	151.00	6490.61	980081.45
6.15	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWT D SR of 2011-12)								
			1	208.39	7.50	--	1562.93		
			1	59.84	7.50	--	448.80		
							2011.73		
						Say	2012.00	16.46	33115.91
6.16	KSRRB M500-17. Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.0 to 4.5% by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignmnet, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.7 complete in all respects as per specifications. Bitumen 60/70 MoRT&H Specification No. 507	Cum							
	(P.No. 174 I.No.21.19.2 of PW,P&IWT D S.R 2011-12).								
			1	208.39	7.50	0.05	78.15		
			1	59.84	7.50	0.05	22.44		
							100.59		
						Say	101.00	8856.14	894470.18

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
6.17	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&I WTD. SR of 2011-12)								
			1	208.39	7.50	--	1562.93		
			1	59.84	7.50	--	448.80		
							2011.73		
						Say	2012.00	16.46	33115.91
6.18	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100 - 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum							
	(P.No.175 of I.No.21.22.4 in PW,P&I WTD S.R 2011-12)								
			1	208.39	7.50	0.04	62.52		
			1	59.84	7.50	0.04	17.95		
							80.47		
						Say	80.50	11208.63	902294.62
6.19	KSRRM M2700 -4. Providing fitting and fixing mild steel railing complete as per drawing and technical Specification. Complete as per MORTH Specification No. 2703.2, 1900	m							
	(P.No. 250, I.No. 32.4 of PW, P & I WTD S.R 2011-12)		2	268.23	--	--	536.46		
						Say	536.50	2762.64	1482156.36
6.20	KSRRB M100-4.2. Haulage of materials by Cum tipper including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 Case-I : Surface Road								
	(P. No.141&147 of PW, P&I WTD S.R 2011-12)								
	Qty same as item no 6.01								
	For 20Km RS. 2.00 X 1.3 X 20 = (52.00 + 62.20)X1.08=123.34								
			1	1245.50	--	--	1245.50	123.34	153619.97
									37024974.92
6.21	Miscellaneous & Rounding off								25.08
								TOTAL	37025000.00

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
7.00	SITE CLEARANCE AND DISMANTLING								
7.01	KSRRB 200-2: Cutting of trees girth from 600mm to 900mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials with all lead & lift, earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Specification Clause No.201.	Each							
	(P.No.143, I.No.18.2 of PW,P&IWTD S.R 2011-12)		--	--	--	--	2	290.142	580.28
7.02	KSRRB 200-4: Cutting of trees girth from 1800 to 2700mm including cutting of trunks, branches and removal of stumps stacking of serviceable materials with a lead of 100 metres, earth filling in the depressions / pit, labour charges complete as per specifications. MORTH Specification Clause No.201.	Each							
	(P.No.143, I.No.18.4 of PW, P&IWTD SR 2011-12)		--	--	--	--	6	1208.52	7251.12
7.03	KSRRB M200-12.1: 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. i) Lime/Cement Concrete. I.By Manual means, A. Lime Concrete, Cement Concrete Grade M-10 & below PCC	Cum							
	(P.No.144, I.No.18.17 of PW,P&IWTD S.R 2011-12)								
	Drain Bed								
	LHS		1	421.00	2.10	0.10	88.41		
	RHS		1	476.00	1.70	0.10	80.92		
							169.33		
						Say	169.50	244.08	41371.56
7.04	KSRRB M200-12.2: 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 and serviceable material with all lifts complete as per specifications. i) Lime/Cement Concrete.I.By Manual means, A. Lime Concrete, Cement Concrete Grade M-15 & M-20 PCC	Cum							
	(P.No.144, I.No.18.18 of PW,P&IWTD S.R 2011-12)								
	Footpath								
	LHS		1	150.00	1.80	0.15	40.50		
	RHS		1	160.00	1.80	0.15	43.20		
	Between Main Carriageway and Service Road		1	450.00	2.00	0.15	135.00		
							218.70		
						Say	219.00	293.76	64333.44

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.05	KSRRB M200-15.2. 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. ii) Dismantling Stone Masonary B. Rubble Stone Masonry, in Cement Mortar. SSM	Cum							
	(P.No.145, I.No.18.27 of PW,P&IWD S.R 2011-12)								
	For Drain								
	LHS		2	421.00	0.45	1.00	378.90		
	RHS		2	476.00	0.45	1.00	428.40		
							807.30		
						Say	807.50	194.40	156978.00
7.06	Removing of Footpath slab	Sqm							
	(P.No.268, I.No. 37.56 of PW,P&IWD S.R 2011-12)								
	Removing of Drain Precast -Slab								
	LHS		1	150.00	1.50	--	225.00		
	RHS		1	200.00	1.50	--	300.00		
							525.00		
						Say	525.00	95.796	50292.90
7.07	Removing BS Slab of Drain and Stacking	Sqm							
	(P.No.28, I.No. 5.32 of PW,P&IWD S.R 2011-12)								
	LHS		1	150.00	2.00	--	300.00		
	RHS		1	200.00	2.00	--	400.00		
	Between Main Carriageway and Service Road		1	50.00	1.80	--	90.00		
	Kerb LHS		1	421.00	0.40	--	168.40		
	Kerb RHS		1	476.00	0.40	--	190.40		
	Median Kerb		2	500.00	0.40	--	400.00		
							1548.80		
						Say	1549.00	47.52	73608.48
7.08	KSRRB 200-22.1: Dismantling of flexible pavements and disposal of dismantled materials upto a lead of 1000 meters, stacking serviceable and unserviceable materials seperately complete as per specifications II. By Mechanical Means: A. Bituminous courses. MORTH Specification No. 202.	Cum							
	(P.No.146, I.No.18.46 of PW, P&IWD S.R 2011-12)								
			1	360.00	15.00	0.15	810.00		
						Say	810.00	160.16	129732.84

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
7.09	KSRRB 200-22.2: Dismantling of flexible pavements and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable materials separately complete as per specifications I. By Manual Means: B. Granular courses. MoRT&H Specification No. 202.	Cum							
	(P.No.146, I.No.18.45 of PW, P&I WTD S.R 2011-12)								
			1	360.00	15.00	0.30	1620.00		
						Say	1620.00	317.52	514382.40
	Dismantling of Existing Culverts .								
7.10	KSRRB M200-12.1. 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, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime/Cement Concrete.I.By Manual means, A. Lime Concrete, Cement Concrete Grade M-10 & below PCC	Cum							
	(P.No.144, I.No.18.17 of PW,P&I WTD S.R 2011-12)								
	Bed Concrete								
	8m Length	3	1	8.00	1.70	0.10	4.08		
						Say	4.50	244.08	1098.36
7.11	KSRRB M200-15.2. 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. ii) Dismantling Stone Masonary B. Rubble Stone Masonry, in Cement Mortar. SSM	Cum							
	(P.No.145, I.No.18.27 of PW,P&I WTD S.R 2011-12)								
	SSM								
	8m Length	3	2	8.00	0.45	1.00	21.60		
						Say	22.00	194.40	4276.80
7.12	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. By mechanical means, A. Cement concrete Grade M-15 & M-20.	Cum							
	(P.No.144, I.No.18.20 of PW,P&I WTD S.R 2011-12)								
	Deck Slab :								
	8m Length	3	1	8.00	1.50	0.25	9.00		
						Say	9.00	324.00	2916.00

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
7.13	KSRRB M200-17.1. 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. iii) Dismantling stone masonry. A. Steel Work in all types of sections upto a Height of 5m above plinth level excluding cutting of rivet including dismembering. MoRT&H Specification No.202	MT.							
	(P.No.145, I.No.18.33 of PW,P&IWTD S.R 2011-12)								
	Consider 100kg/Cum for Slab		1	9.00	--	--	0.90		
						Say	1.00	928.80	928.80
7.14	KSRRB M100-4.1. Cost of Haulage including Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kanker / Moorum.Placing tipper at loading point, loading with front end loader,dumping , turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH-100 Chapter 1 Case-I : Surface Road	Cum							
	(P.No.141&147, of PW, P&IWTD SR 2011-12)								
	Qty same as item No. 7.05, 7.11								
	Total Qty =2748+117 = 2865 Cum								
	For 20Km RS. 2 X 1.8 X 20 = (72.00 + 62.20) X 1.08 = 144.94		1	829.50	--	--	829.50	144.94	120227.73
7.15	KSRRB M100-4.1. Cost of Haulage including Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kanker / Moorum.Placing tipper at loading point, loading with front end loader,dumping , turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH-100/ Chapter 1 Case-I : Surface Road	Cum							
	(P.No.141&147, of PW, P&IWTD SR 2011-12)								
	Qty same as item No. 7.05,7.06,(7.08 X 0.10),(7.09 X 0.45 X 0.20),7.12,7.14,7.16 & 7.17		1	3039.40	--	--	3039.40		
	For 20Km Rs. 2 X 1.3 X 20 = (52 + 62.20) X 1.08 = 123.34					Say	3039.50	123.34	374891.93
7.16	KSRRB M100-4.2. Haulage of materials by tipper Including cost of loading, unloading and stacking complete as per specifications. MoRT&H Chapter 1 For Steel	Cum							
	(P.No.141&147, of PW, P&IWTD SR 2011-12)								
	Qty same as item No.7.13								
	For 20Km Rs. 2.00 X 7.85 X 20 = (314 + 100.50)X1.08=447.66		1	1.00	--	--	1.00	451.12	451.12
7.17	Miscellaneous and Rounding off							154	2321.76
									678.24
								TOTAL	1544000.00

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
8.00	Diversion Road								
8.01	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5	Sqm							
	(P.No.172 I.No.21.7 of PW,P&IWTD SR of 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	--	1984.75		
	Ch 1540 to Ch 1340		1	200.00	7.95	--	1590.00		
	Below Obligatory Span		1	40.00	8.85	--	354.00		
	At Junction		1	50.00	10.85	--	542.50		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	--	1978.50		
	For Left Turn From Service Road		1	40.00	5.30	--	212.00		
	Service Road West Side		1	100.00	6.60	--	660.00		
	Battery Limit								
	Towards Shivnagar 1st Main Road Jn.		1	100.00	18.60	--	1860.00		
	Towards Magadi Road		1	100.00	20.50	--	2050.00		
	Towards Basaveshwara Nagar		1	100.00	10.00	--	1000.00		
							12231.75		
							Say 12232.00	16.46	201323.93
8.02	KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100 - 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 with 30-45mm compacted thickness (grading II) with 6% 60/70 grade using 40-60 HMP	Cum							
	(P.No.175 of I.No.21.22.4 in PW,P&IWTD S.R 2011-12)								
	Surface level Roads								
	East side of Flyover - Main Carriageway								
	Ch 1700 to Ch 1530		1	170.00	11.68	0.04	79.39		
	Ch 1540 to Ch 1340		1	200.00	7.95	0.04	63.60		
	Below Obligatory Span		1	40.00	8.85	0.04	14.16		
	At Junction		1	50.00	10.85	0.04	21.70		
	Service Road East Side								
	Ch 1540 to Ch 1240		1	300.00	6.60	0.04	79.14		
	For Left Turn From Service Road		1	40.00	5.30	0.04	8.48		
	Service Road West Side		1	100.00	6.60	0.04	26.40		
	Battery Limit								
	Towards Shivnagar 1st Main Road Jn.		1	100.00	18.60	0.04	74.40		
	Towards Magadi Road		1	100.00	20.50	0.04	82.00		
	Towards Basaveshwara Nagar		1	100.00	10.00	0.04	40.00		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
							489.27		
						Say	489.50	11208.63	5486623.80
8.03	KSRRB M800-43: Installation of a steel portable barricade with horizontal rail 300mm wide, 2.5m in length fitted on a 'A' frame made with 45x45x5mm angle iron section, 1.5m in height, horizontal rail painted (2coats) with yellow and white stripes, 150mm in width at an angle of 45degree, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001 complete as per specifications.	Each							
	(P.No.198, I.No.24.44 of PW,P&IWTDR SR 2011-12)		294.6	--	--	--	295.00	2214.00	653130.00
8.04	Supplying, fabricating, erecting, and fixing in position, inserts and embedment, Truss, clamps, brackets, insert plates and all miscellaneous steel works as shown in drawing and as directed by the Engineer at all depths, using MS angles, channels, steel beams, rails, tees, plates, flats, rounds squares etc., of various sizes and other structural section confirming IS 2062 grade A, medium class GI pipes etc., including straightening, cutting, fabricating, welding, bending to slope fixing to position, welding to insert plate embedded in concrete and inclusive of 2coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all materials, labour, tools, tackets, cranes, devices and plants, Welding Electrodes, Bolts, Nuts, Washers, Clamps, connections, Shims and Packing Pieces etc., required for the Work as per the specifications and Drawings complete with all lead and lifts as directed by the Engineer-in-charge.	MT							
	Data Rate								
	MS Sheet 2mm thick for Barricading		--	--	--	--	17.78		
	755 x 1.5 x 0.002 x 7850 =18298.35kg Say 18.3MT						17.80	61000	1085800.00
8.05	KSRRB M800 - 46. Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag 600 x 600 mm securely fastened to a staff 1 m in length for guiding the traffic complete as per specifications.	Each							
	(P.No.199, I.No.24.49 of PW,P&IWTDR 2011-12)								
	Considering 5 Nos. per day for a period of 15months		2250	--	--	--	2250.00	281.88	634230.00
8.06	Providing and fixing Project Display Board of size 1.80 vertical x 1.60 mtrs. Horizontal made of cold rolled coil 16 Gauge (1.6mm thickness) sheeting strengthened by welding to MS angle of size 35x35x5mm iron framework on all sides, extra cross vertical angle fixed using nuts and bolts, base of the board shall be cleaned, applying red oxide	Nos.							

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	and black paint by sprayer on both sides of the board and all MS iron frameworks, background of the facing side of the board painted in traffic yellow, project information written in English / Kannada / Hindi, painting letters and numeral in black, fixed on a mild steel angle iron post 75 mm x 75 mm x 6mm, 2Nos. firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60cm below ground level and the board 2.8m from ground level as per approved drawing including cost of all materials, labour, unloading, curing backfilling, transporting etc., complete.								
	(P. No.81, Item no 8.47 of NHR 2009-10)		4	--	--	--	4.00		
							4.00	7960.60	31842.40
									8092955.13
8.07	Miscellaneous and Rounding off								44.87
								TOTAL	8093000.00

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements Corridor along Selected Stretch of Chord Road

Over Head & Cantilever Gantry Detailed Estimation

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
4.07	OVER HEAD GANTRY OF SPAN 30M								
4.07.1	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTDR 2011-12)								
	Gantry		3	3.90	3.90	1.80	82.13		
						Say	82.50	45.08	3719.48
4.07.2	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&IWTDR 2011-12)								
	Gantry		3	3.90	3.90	0.10	4.56		
						Say	5.00	3724.92	18624.60
4.07.3	KSRRB M2100-14 Reinforced cement concrete M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008, in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No.1500,1700 & 2100	Cum							
	(P.No.222, I.No.27.25 of PW, P&IWTDR 2011-12)								
	Column footing		2	3.70	3.70	0.60	16.43		
						Say	16.50	4401.00	72616.50
4.07.4	KSRRB 2200-5.9. Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.227, I.No.28.7.9 of PW, P&IWTDR 2011-12)								
	Column upto GL		2	2.50	2.50	1.10	13.75		
						Say	14.00	4931.28	69037.92
4.07.5	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTDR 2011-12)								
	Gantry								
	Mat Reinforcement					Unit Wt/Rmt			
	Main bar 25 nos 12mm dia	3	25	4.40	--	0.89	293.70		
	Distribution bar 25 nos 12mm dia	3	25	4.40	--	0.89	293.70		
	Column pedestal								

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Main bar 16 nos 16mm dia	3	16	4.50	--	1.58	341.28		
	Stirrups 8mm dia bar.200mm c/c								
	Vertical	3	27	7.40	--	0.394	236.16		
	Horizontal	3	9	7.40	--	0.394	78.72		
	Diagonal	3	9	6.70	--	0.394	71.27		
						Sub Total	1314.84		
	Add 5% for Wastage						65.74		
						Total	1380.58		
						Qty in MT	1.38		
						Say	1.50	68274.71	102412.06
4.07.6	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel works as shown in drawing and as directed by the Engineer at all depths, using MS angles, channels, steel beams, rails, tees, plates, flats, rounds squares etc., of various sizes and other structural section conforming IS 2062 grade A, medium class GI pipes etc., including straightening, cutting, fabricating, welding, bending to slope fixing to position, welding to insert plate embedded in concrete and inclusive of 2coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all materials, labour, tools, tackets, cranes, devices and plants, wastage etc., as per specifications and drawings complete. Including cost of bolts, nuts, washers, clamps, welding, electrodes, and connections required for the work. Rate to include shims and packing peices etc., complete with all lead and lifts as directed by the Engineer-in-charge.	MT							
	(Data Rate)								
	Gantry								
	Structural steel on pedestal					Unit Wt/Rmt			
	M S Base plate 20mm thick								
	3x2.5mx2.5mx0.02mx7850kg/cum = 2943.75 kgs		--	--	--	--	2943.75		
	Anchor bolt 25mm dia 16 nos 3.42 kg/No		3	16.00	--	3.42	164.16		
	Stiffener plate 12mm thick 4 nos per each pedestal								
	Vertical Plate								
	3x4X2.3mx0.4mx0.012mx7850kg/cum = 1039.97 kgs		--	--	--	--	1039.97		
	Stiffeners								
	3x16X0.1mx0.3mx0.012mx7850kg/cum = 135.65 kgs		--	--	--	--	135.65		
	Vertical structural sections								
	ISA 100x100x8mm @ 12.1kg/m	3	4	8.69	--	12.10	1261.79		
	Horizontals								
	ISA 65x65x6mm @5.8kg/m	3	16	2.00	--	5.80	556.80		
	Diagonal sections								
	ISA 75x75x6mm @ 6.8kg/m	3	20	2.65	--	6.80	1081.20		
	Horizontal structural sections								
	ISA 75x75x6mm @ 6.8kg/m	1	2	34.00	--	6.80	462.40		
	ISM 125x65x65mm @13.1kg/m	1	2	34.00	--	13.10	890.80		
	Vertical								
	ISA 65x65x6mm @5.8kg/m	2	17	1.00	--	5.80	197.20		
	Horizontal								
	ISA 65x65x6mm @5.8kg/m	2	17	2.00	--	5.80	394.40		
	Diagonal sections								
	Front & Back	2	34	2.24	--	6.80	1035.78		
	Bottom & Top	2	34	2.24	--	6.80	1035.78		
	Covering of truss								
	Ms Plate 5mm thick @ 39.2 kg/Sqm								
	Top	1	34	2.00	--	39.20	2665.60		
	Gusset Plate								
	A-type Vertical Joint								
	3x20X0.3mx0.4mx0.008mx7850kg/cum = 452.16 kgs		--	--	--	--	452.16		
	B-type Top Horizontal Joint								
	2x7X0.15mx0.15mx0.008mx7850 kg/cum = 19.78 kgs		--	--	--	--	19.78		

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	C-type								
	2x3X0.30mx0.30mx0.008mx7850 kg/cum = 33.91 kgs		--	--	--	--	33.91		
	Sides								
	2x17X0.30mx0.30mx0.008mx7850kg/cum = 192.17 kgs		--	--	--	--	192.17		
						Total	14568.29		
						Qty in MT	14.57		
						Say	15.00	61000.00	915000.00
4.07.7	KSRRBM800-5.2. Providing and Erecting overhead signs with a corrosion resistant 2mm thick aluminium alloy sheet reflectorised with high intensity retro-reflective sheeting of encapsulated lense type with vertical & lateral clearance given in clause 800.2.2 and 800.2.3 and installed as per cluse 800.2.7 over a designed support system of aluminium alloy or galvanised steel trestles and trusses of sections and type as per structural design requirements and approved plans complete as per specifications. B.Aluminium Alloy Plate for Over Head Sign MORTH Specification No. 802	Sqm							
	(P.No.192, I.No.24.6 of PW,P&IWTDR SR 2011-12)								
	Covering of truss								
	Top		2	34.00	--	1.00	68.00		
							68.00	5648.4	384091.2
4.07.8	KSRRB 15.18.1: Applying red lead ready mix priming coat over new steel or other metal surface including preparing the surface after thoroughly cleaning oil, grease, dirt and othe foreign matter, and scoured with wire brushes, fine steel wool, sand papers including cost of materials, labour, complete as per specifications.	Sqm							
	(P.No.127, I.No.15.73 of PW,P&IWTDR SR 2011-12)								
	Gantry		12	2.00	--	8.70	208.80		
	Top Truss		2	30.00	--	1.00	60.00		
			2	30.00	--	2.00	120.00		
	Covering Truss								
	Ms Plate 5mm thick @ 39.2 kg/Sqm		1	30.00	--	2.00	60.00		
							448.80		
						Say	449.00	23.76	10668.24
4.07.9	KSRRB 15.18.2: Providing and applying enamel metal paint two coats (Excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materails, labour, complete as per specifications.	Sqm							
	(P.No.127, I.No.15.74 of PW,P&IWTDR SR 2011-12)								
	Quantity same as Primer Coat		--	--	--	--	68.00	76.68	5214.24
4.07.10	KSRRB 2.4: Refilling available excavated earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting earth deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications.	Cum							
	(P.No.6, I.No.2.1.1 of PW,P&IWTDR SR 2011-12)								
			--	--	--	--	61.00	58.32	3557.52
4.07.11	KSRRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder / Stone aggregates / Sand /Kankar / Moorum KSRRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH Chapter 1	Cum							
	conveying up to 20km by mechanical means.								
	(P.No.141&147 of PW,P&IWTDR S.R 2011-12)			--	--	--	21.50	123.34	2651.81

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
								TOTAL	1587593.57
4.08	CANTILEVER GANTRY								
4.08.1	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures as per drawing and technical specifications. Including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications, B. Mechanical Means (i) Depth upto 3m MORTH Specification No. 304 (Add 10% dewatering charges)	Cum							
	(P.No. 220, I.No. 27.4 of PW, P & IWTDR SR 2011-12)								
	Cantilever Gantry		1	2.15	2.15	1.50	6.93		
						Say	7.00	45.08	315.5922
4.08.2	KSRRB M2100-13. Plain Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.24 of PW,P&IWTDR S.R 2011-12)								
	Cantilever Gantry		1	2.15	2.15	0.10	0.46		
						Say	0.50	3724.92	1862.46
4.08.3	KSRRB M2100-14 Reinforced cement concrete M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008, in Open foundation complete as per Drawing and Technical Specifications. MORTH Specification No.1500,1700 & 2100	Cum							
	(P.No.222, I.No.27.25 of PW, P&IWTDR SR 2011-12)								
	Column footing		1	1.95	1.95	0.40	1.52		
						Say	2.00	4401.00	8802
4.08.4	KSRRB 2200-5.9. Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008 i) Upto 5 m height	Cum							
	(P.No.227, I.No.28.7.9 of PW, P&IWTDR SR 2011-12)								
	Column upto GL		1	0.60	0.60	1.00	0.36		
						Say	0.50	4931.28	2465.64
4.08.5	KSRRB M2200 - 6. Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications complete as per specifications. MORTH Specification No. 1600 & 2200	MT							
	(P.No.229, I.No.28.8 of PW, P&IWTDR SR 2011-12)								
	Mat Reinforcement								
	Main bar 10 nos 10mm dia bar		10	2.40	--	--	24.00		
	10x2.4 = 24.00 x 0.62kg/m						14.88		
	Distribution bar 10 nos 10mm dia bar		10	2.40	--	--	24.00		
	10x2.4 = 24.00x 0.62kg/m						14.88		
	Column pedestal								
	Main bar 4 nos 16mmdia bar		4	2.60	--	--	10.40		
	4x2.6 = 10.40 x 1.57kg/m						16.33		
	Main bar 4 nos 12mmdia bar		4	2.60	--	--	10.40		
	4x2.6 = 10.40 x 0.89kg/m						9.26		
	Stirrups 10 nos 8mm dia bar		10	2.50	--	--	25.00		
	10x2.5 = 25.00 x 0.39kg/m						9.75		
						Total	65.09		

Sl. No.	Description of Work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
						Qty in MT	0.07		
						Say	0.50	68274.71	34137.353
4.08.6	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel works as shown in drawing and as directed by the Engineer at all depths, using MS angles, channels, steel beams, rails, tees, plates, flats, rounds squares etc., of various sizes and other structural section confirming IS 2062 grade A, medium class GI pipes etc., including straightening, cutting, fabricating, welding, bending to slope fixing to position, welding to insert plate embedded in concrete and inclusive of 2coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all materials, labour, tools, tacks, cranes, devices and plants, wastage etc., as per specifications and drawings complete. Including cost of bolts, nuts, washers, clamps, welding, electrodes, and connections required for the work. Rate to include shims and packing peices etc., complete with all lead and lifts as directed by the Engineer-in-charge.	MT							
	(Data rate)								
	MS Base plate 16mm thick								
	0.6mx0.6mx0.016mx7850kg/cum = 45.22 kgs			--	--	--	45.22		
	Anchor Bolt 25mm bolt 750mm long 8nos		8	0.75	--	--	6.00		
							20.52		
	Stiffner plate 12mm thick 4 nos								
	4x0.3mx0.15mx0.012mx7850kg/cum		--	--	--	--	16.96		
	NB 300 @ 45Kg/m		1	6.00	--	--	6.00		
							270.00		
	Base Plate 12mm above NB 300								
	2x0.85mx0.85mx0.012mx7850kg/cum= 45.22 kgs			--	--	--	136.12		
	Stiffner plate								
	4x0.3mx0.15mx0.012mx7850kg/cum		--	--	--	--	16.96		
	NB 80 @ 49.5Kg/m								
	Horizontal		4	4.30	--	--	17.20		
	Top & Bottom		10	0.75	--	--	7.50		
	Diagonal		8	2.05	--	--	16.40		
							41.10		
							2034.45		
	NB 50 @ 5.1Kg/m								
	Vertical		10	1.80	--	--	18.00		
							91.80		
	NB 100 @ 12.1Kg/m								
	Cantilever Supporting Bar		2	1.00	--	--	2.00		
							24.20		
	Covering of Truss								
	MS Plate 5mm thick @ 39.2kg/sqm		2	4.30	--	2.00	17.20		
							674.24		
						Total	3330.46		
						Qty in MT	3.33		
						Say	3.50	61000.00	213500.00
4.08.7	KSRB 15.18.1: Applying red lead ready mix priming coat over new steel or other metal surface including preparing the surface after thoroughly cleaning oil, grease, dirt and othe foreign matter, and scoured with wire brushes, fine steel wool, sand papers including cost of materials, labour, complete as per specifications.	Sqm							
	(P.No.127, I.No.15.73 of PW,P&IWTD SR 2011-12)								
	Cantilever Gantry								
	NB 300		1	0.94	--	6.00	5.66		

Sl. No.	Description of Work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Horizontal sides		2	4.30	--	1.80	15.48		
	Top & Bottom		2	4.30	--	0.75	6.45		
	Covering for Truss								
	MS Plate 5mm thick		2	4.30	--	2.00	17.20		
							44.79		
						Say	45.00	23.76	1069.2
4.08.8	KSRRB 15.18.2: Providing and applying enamel metal paint two coats (Excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications.	Sqm							
	(P.No.127, I.No.15.74 of PW,P&IWD SR 2011-12)		--	--	--	--	45.00	76.68	3450.6
4.08.9	KSRRB 2.4: Refilling available excavated earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting earth deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications.	Cum							
	(P.No.6, I.No.2.11 of PW,P&IWD SR 2011-12)								
4.08.10	KSRRB M100-4.1: Cost of Haulage including loading and unloading of stone Boulder / Stone aggregates / Sand /Kankar / Moorum KSRRB M100-1: Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications. MORTH Chapter 1	Cum							
	Conveying up to 20km by Mechanical means.								
	(P.No.141&147 of PW,P&IWD S.R 2011-12)		--	--	--	--	2.50	123.34	308.35
								Total	266173.64

BRUHAT BANGALORE MAHANAGARA PALIKE**Project: Proposed Improvements Corridor along Selected Stretch of Chord Road****Name of the Work: Construction of Flyover at Basaveshwara Nagar 1st Main Road Junction****Electrical Estimate**

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
9.01	Supplying and fixing of Philips make Velocity street light, fixtures suitable for 250 Watt SON - T PIA sodium vapour lamp SGP 338 / 250 SON - T sea green, or equivalent with following parameters Housing made out of LM6 high pressure die cast recyclable aluminium alloy ofr sturdiness and excellent corrosion resistance the finish should be powdwe coated sea green housing for improved aesthetics and better environmental protection. The lamp compartment should consist of electrochemically anodized, high purity POT reflector with a soecifically designed ribbed profile for better uniformity and high spacing to mounting ratio, All electrical accessories such as energy efficient low loss open construction copper ballast with tw.130 deg., semi parallel ignitor and siemens EPCOS make power pafactor improvement capacitor should be provided prewired upto terminal block. All accessories are to be mounted toa removabl gear plate for ease of maintenance. All electrcal connections of the control gear module with the rest of the luminarie are click fix, foolproof and require use of no. tools.				
	Control gear compartment opens from top. Heat resistant toughned curved glass bowl for the lamp compartment, which is sealed replacement, is by opening the top compartment to ensure ingress protection of IP66 for the lamp compartment. Flexible optics to achieve optimum light distribution to suit different road and installation parameter. Specially designed dual pole mounting arrangement bottom as well as lateral pole mounting suitable for mounting on pole dial., 42mm-70mm luminarie shall fully confirmed to safety norms according to IEC598/ENEC60598 make philips or GE.	Nos	32	10500.00	336000.00
9.02	SON-T PLUS PIA 250W HPSV TUBULAR LAMP Supplying and fixing 250W high pressure sodium vapour lamp of tubular design with lead free environment- friendly glass, without built in ignitor and having a luminous efficacy not less than 125 lumen/watt with a restricting time-30seconds suitable for fixing in the velocity sodium vapour street light fitting for operation on single phase 230V 50Hz, AC power supply and confirming to IS9974 PART I and II (latest).	Nos	32	9500.00	304000.00
9.03	Fixing metal halide Street light fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires complete (SR 2010-11) Page 26, Item 5.	Nos	64	130.00	8320.00
9.04	Supplying and fixing telescopic M.S.bracket fabricated by using 0.5m length 4" dia telescopic M.S.pipe with 2" dia 1.5m long M.S.bracket all are welded with suitable angle using 6mm thick M.S.sheet, grip bolt & nuts as required suitable for 9 to 12 mtrs M.S.tubular pole or octogonal pole with necessary two coats of approved painting, with all other accessories etc complete				
	a) Single bracket 1 X 1.5 Mtr.Length (SR 2010-11) Page 26, Item 4(b).	Nos	82	1005.00	22160.00
	c) Double bracket 2 X 1.5 Mtr.Length (SR 2010-11) Page 26, Item 4(c).	Nos	16	1200.00	19200.00
9.05	Fabricating, supplying and erecting sawged tubular pole of height 9Mtr having three sections and providing two coats of red oxide paint and finished with two coats of enameled paint of approved quality and color and M.S.Base plate of suitable size welded at the bottom of the pole(as per IS)and 40mm dia GI/flexible PVC pipe of 1Mtr. length fitted to the heavy guage polycarbonate control box including 5way connector of size 167x125x82mm for 7.5M pole /200x160x98mm for remaining length of pole with front opening cover, with locking arrangements and suitable capacity MCB/DP switch. The pole shall be erected n cement concrete work(1:2:4)including excavation and refilling of planting depth of the pole to the to the ground level and the coping CC shall be upto 0.6M above ground level as per 2713-7				
	C) 10 Mtr (5.2Mtr Hb 139.7mm dia 4.85mm thick x 2.4 Mtr Hm, 114.3mm dia 4.50mm thick x 2 M Ht, 88.9mm dia 3.25mm thick as per IS 410 SP 29	Nos	48	18050.00	864000.00

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
9.06	Supply, installation, testing & commissioning of outdoor type feeder pillar board with TVM meter as per power distribution schematic diagram enclosed. The rates shall include all necessary foundation & civil works (MKT Rate)	No	1	80000.00	80000.00
9.07	Supplying, providing, testing and commissioning of 1.1 KV class single core 3/20mm stranded copper cable PVC insulated and sheathed for street lights from the control points located on pole supports at 2.0m above ground level complete and as directed by the Engineer in charge (SR 2010-11) Page 9, Item 20(I)(c)	Mtrs	1000	25.00	25000.00
9.08	Supplying, providing, testing and commissioning of 50mm GI pipe at pole supports to enclose the UG cable etc., complete and as directed by the Engineer in charge including digging erection etc. (SR 2010-11) Page 69, Item 15(b).	Mtrs	150	260.00	39000.00
ELECTRIFICATION - BOX TUNNEL					
9.09	Supplying high pressure 150 Watts metal halide street light luminaire suitable for use with high pressure metal halide lamp with integrated control gear. The fitting shall be on non corrosive high pressure die cast aluminum housing with low copper content gray powder coated finish including wiring, suitable to operate on 230/250V 50Hz AC supply including heavy duty copper biased igniter, condenser and 150watts metal halide lamp. (SR 2010-11) page 19, Item 13.(II)(a)	Nos	12	5450.00	65400.00
9.10	Fixing metal halide Street light fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires complete (SR 2010-11) Page 26, Item 5.	Nos	12	130.00	1560.00
9.11	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers etc., complete 63 Amps	Nos	4	219.00	876.00
9.12	Supplying and fixing of class 'A' (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable 50mm.	Rmtr	120	260.00	31200.00
9.13	Fabricating, supplying and mounting MS box made out...SWG suitable for floor/wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with 16SWG	Nos	48	600.00	28800.00
9.14	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S.flat...with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint 40X40X6mm	Mtrs	30	210.00	6300.00
Supplying of L.T. Cables					
9.15	Supplying of L.T.UG cable having aluminium conductor PVC insulated sheathed, galvanised, steel wire/steel tape armoured cable with PVC outer sheathing 1.1 KV class (conforming to IS 1554)				
9.15.1	3.5C x 50 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(g)	Mtrs.	80	250.00	20000.00
9.15.2	3.5C x 25 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(e)	Mtrs.	60	215.00	12900.00
9.15.3	4C x 16 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(d)	Mtrs.	800	150.00	120000.00
Laying of L.T. Underground cables					
9.16	Labour charges for laying of 1.1 KV class UG cable when supplied departmentally / agency in existing trench GI pipe / stoneware pipe / on wall / on pole as required				
9.16.1	3.5C x 50 Sqmm XLPE cable (SR 2010-11) page 68, Item 11.(I)(b)	Mtrs.	80	8.00	640.00
9.16.2	3.5C x 25 Sqmm XLPE cable (SR 2010-11) page 68, Item 11.(I)(b)	Mtrs.	60	8.00	480.00
9.16.3	4 C x 16 Sqmm XLPE cable (SR 2010-11) page 67, Item 10(I)(a)	Mtrs.	800	5.00	4000.00
9.17	End Termination of above cables with glands crimping type copper sockets.				
9.17.1	3.5C x 50 Sqmm XLPE cable (SR 2010-11)	Nos	4	340.00	1360.00

Sl. No.	Description of work	Unit	Quantity	Rate in Rs.	Amount in Rs.
	Page 69 & 72 item 17(d) & 26() ()				
9.17.2	3.5C x 25 Sqmm XLPE cable (SR 2010-11)	Nos	4	215.00	860.00
	Page 69 & 72 item 17(d) & 26() ()				
9.17.3	4C x 16 Sqmm XLPE cable (SR 2010-11)	Nos	96	150.00	14400.00
	Page 69 & 72 item 17(d) & 26() ()				
9.18	Supplying and fixing L.T. cast iron pot-heads suitable for 1.1KV class UG Cable filled with necessary bitumen/insulating compound with terminals, clamps, bolts, nut and washers etc.,				
a)	35 sqmm (SR 2010-11) page 69, Item 16(e)	Nos	1	313.00	313.00
b)	25 sqmm (SR 2010-11) page 69, Item 16(e)	Nos	1	286.00	286.00
9.19	Digging of trench of 0.6 mtr deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete (as per civil SR KSRB 1-2, P-7)				
	a. In soil (hard)	Rmtr	600	50.00	30000.00
	(SR 2010-11) Page 68, Item 12(b)				
	EARTHING				
9.20	Supplying fixing, wiring earth electrode for grounding conduits, F.C. cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduit etc. is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc. the pipe shall have 16 through holes of 12.2mm dia. (SR 2010 11) page-67, item-7	Nos.	4	1500.00	6000.00
9.21	Supply & laying following GI Flat/wires as Earthing conductors from equipment to earth stations.				
9.22	25 x 6mm G.I. Flat (SR 2010-11) Page 67.9 (b)	Mtrs.	250	140.00	35000.00
9.23	8 SWG. G.I. Wire (SR 2010-11) Page-74, item 30.I.(c)	Mtrs.	800	20.00	16000.00
	Miscellaneous				
9.24	Providing and laying reinforced cement concrete pipe NP2 150mm dia for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 (Pg No: 225, I.No.34.7.1 of PW, P&I WTD SR 2011-12)	Mtrs.	200	389.00	77800.00
9.25	Video Surveillance Systems consisting of outdoor fixed cameras, video encoders, video management software, recording servers, etc for outdoor surveillance of the construction site locally as well as from a remote location	LS			500000.00
					2684255.00
9.26	Miscellaneous & Rounding off				5745.00
	Total Amount in Rs.				2690000.00



Rate Analysis and Data Rate

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Flyover at Manjunath Nagar Main Road Junction

Rate Analysis for Flyover Works

(Based on Schedule of Rates for the year 2011-2012 PW, P&WTD Bangalore Circle.)

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
1	KSRRB M300-11. Excavation for road way in soil by mechanical means including cutting and pushing the earth to site of embankment	Cum	150	19.11	65.15	5.21	70.36
2	Conveying the excavated earth, and disposal of debris etc.	Cum	147				
	Debris	Average weight in ton/cum	1.30				
	Basic rate for haulage of materials as per item No.17.4 KSRRB: M 100-4.1	Rs. 2.00/Tonne	2.00				
	Average weight of earth For 20 kms	Km					
	Add loading & unloading item No.17.1 KSRRB M100-1				52.00		
					62.20		
3	KSRRB M300-55: Construction of sub-grade and earthen shoulders with approved material / Gravel	Cum	156	19.62	162.00	12.96	174.96
4	KSRRB M400-7: Construction of granular sub-base by providing Coarse graded material (Grading-1)	Cum	164	20.61	973.00	77.84	1050.84
5	KSRRB M400-17: Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam	Cum	166	20.18	982.00	78.56	1060.56
6	KSRRB M500-6: Providing and applying primer coat with bitumen emulsion on prepared surface	Sqm	171	21.6	37.58	3.01	40.59
7	KSRRB M500-8: Providing and applying tack coat on granular surface treated with primer at 7.5 kg per 10 sqm	Sqm	172	21.8	18.50	1.48	19.98
8	KSRRB 500-11: Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates	Cum	172	21.12	6009.82	480.79	6490.61
9	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 5 kg per 10 sqm.	Sqm	172	21.7	15.24	1.22	16.46
10	KSRRB M500-17: Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP	Cum	174	21.19.2	8200.13	656.01	8856.14
11	KSRRB M500-19: Providing and laying bituminous concrete 40mm thick with 40-60HMP batch type hot mix plant	Cum	175	21.22.4	10378.36	830.27	11208.63
12	KSRRB M2100-13 Plain cement concrete in open foundation complete	Cum	222	27.24	3449.00	275.92	3724.92

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
13	Furnishing and Placing Reinforced cement concret in sub - structure as per drawing and Technical specification e) RCC Grade M-20 - (i) Upto 5m Height.	Cum	227	28.7.9	4566.00	365.28	4931.28
14	KSRRB M2300-06: Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications	MT	229	28.8	63217.32	5057.39	68274.71
15	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3	Sqm	Data Rate				1465.00
16	Providing and laying reinforced cement concrete pipe NP3 of 300mm dia for culverts including pointing	Rmt	257	34.6.1	1395.00	111.60	1506.60
17	KSRRB M2200-8: Providing weep holes in Reinforced concrete abutment	Rmt	229	28.10	137.25	10.98	148.23
18	KSRRB 2100-6: Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers.	Cum	221	27.14	1599.00	127.92	1726.92
19	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials - 20mm down size	Cum	Data Rate				1194.00
20	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials - 40mm down size	Cum	Data Rate				894.00
21	KSRB 14.6-2: Providing and laying heavy duty cobble stones 75mm thick interlock pavers	Sqm	108	14.7	719.00	57.52	776.52
22	M/S Grating for Catch Drains	Sqm	Data Rate				8765.00
23	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms	Cum	6	2.10	90.00	7.20	97.20
24	Removing B.S. Slab of Drain and Stacking	Sqm	28	5.32	44.00	3.52	47.52
25	Refixing stone slabs of drains and pointing in C.M.(1:3)	Sqm	28	5.33	55.00	4.40	59.40
26	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures B.Mechanical Means (i) Depth upto 3m	Cum	220	27.4	37.95		
	Add 10% Dewatering Charges				3.80		
27	Furnishing and Placing Reinforced cement concret in sub - structure as per drawing and Technical specification M-35 grade Height Upto 5m	Cum	228	28.7.18	5083.00	406.64	5489.64
28	KSRRB M2300-7.1. Furnishing and Placing Reinforced / Prestressed cement concrete in super-structure as per drawing and Technical Specification M-35 grade	Cum	236	29.13.1	5482.00	438.56	5920.56
29	KSRB M 2200 5 - 1: Plain Cement Concrete in sub structure complete a) PCC Grade M15 - i) Upto 5m height.	Cum	226	28.7.1	3647.00	291.76	3938.76
30	KSRB M2300 2.2: Furnishing and Placing Reinforced / Prestressed Cement Concrete in Super-structure as per drawing and technical specification M-20 Grade	Cum	233	29.4.1	4891.00	391.28	5282.28
31	KSRRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super - structure complete	MT	241	29.29	63901.71	5112.14	69013.85

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
32	KSRRB M2200-9: Providing and laying of Filter media with stone crushed aggregates satisfying the requirements	Cum	229	No. 28.13	616.00	49.28	665.28
33	Back filling behind abutment, wing wall and return wall complete Granular Material	Cum	229	28.11	255.00	20.40	275.40
34	KSRRB 800-1: Painting two coats after filling the surface with synthetic enamel paint	Sqm	191	24.1	44.90	3.59	48.49
35	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete .Size 450 x 200 x 400 mm	No.	28	5.29.1	269.00	21.52	290.52
36	KSRB 2-2.1: Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines	Cum	5	2.3	134.00	10.72	144.72
37	KSRB 4-1.3: Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm	Cum	12	4.3	3715.00	297.20	4012.20
38	KSRB 5-2-3: Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6,	Cum	25	5.6	2568.00	205.44	2773.44
39	KSRB 5-3-3: Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6,	Cum	26	5.9	3006.00	240.48	3246.48
40	KSRB 4-1.6: Providing and laying in position plain cement concrete of nominal mix 1:2:4 using 20mm	Cum	12	4.6	3959.00	316.72	4275.72
41	KSRRB M800-13: Road Marking with Hot Applied Thermoplastic Compound with Reflecting Glass Beads on Bituminous Surface:	Sqm	193	24.15	398.00	31.84	429.84
42	KSRRB M800-15: Supplying and Installation of delineators (road way indicators,	Nos.	194	24.19	338.00	27.04	365.04
43	KSRRB M800-2: Retro - Reflectors Traffic Signs:- Providing and fixing of retro - reflectors cautionary	Each	191	24.2			
44	KSRRB M800 - 20: Tubular Steel Railing on Medium Weight Steel Channel (SMC Series)	Rmt	194	24.24	1154.00	92.32	1246.32
45	KSRRB M800-35 Providing and fixing of road stud 100 x 100 mm, die cast in aluminium .	Nos.	197	24.41	269.00	21.52	290.52
46	KSRRB 1100: Bored cast - in -situ RCC Pile with OPC cement						
a	KSRRB M1100-3.2 B. Pile Diameter = 1000mm NORTH specifications No. 1100, 1600 & 1700.	Rmt	201	25.4	7131.00	570.48	7701.48
b	KSRRB M1100-3.3 C. Pile Diameter = 1200mm, NORTH specifications No. 1100 & 1700	Rmt	201	25.5	9198.00	735.84	9933.84
47(a)	(A) Doing Initial vertical load test for a design pile load of 270 Tons including cost of all	Nos.	150	12.37(a)	(300*6%)*270*2		171720.00
47(b)	(B) Doing Horizontal load test for a design pile load of 20 Tons	Nos.	150	12.37(b)	(5000*6%)*20*2		212000.00
48	KSRRB M1200-47: Providing steel liner 10mm thick for curbs and 6mm thick for seining	T	217	26.125	60310.00	4824.80	65134.80

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
49	KSRRB M1100 - 11.2 Cement Concrete for Reinforced Concrete in Pile Cap D.RCC mix M35	Cum	203	25.25	4621.00	369.68	4990.68
50	KSRRB 2300 - 11.3. Furnishing and Placing Reinforced / Prestressed cement concrete in super structure M-45 grade complete as per specifications. F.PSC Grade M45. NORTH Specification No.1500, 1600 & 1700 - Height 5m to 10m	Cum	240	29.26.2	6884.00	550.72	7434.72
51	KSRRB M2700-9. Providing, precasting, transportation and placing in position precast post tensioned concrete girders	Cum	251	32.9	17988.00	1439.04	19427.04
52	KSRRB M2300-10.2. Furnishing and Placing Reinforced / Prestressed cement concrete in super structure M-40 grade complete as per specifications. Case - II: Using Batching Plant.	Cum	239	29.22.2	5833.00	466.64	6299.64
53	KSRRB M2300 - 15. High tensile steel wires / strands including all accessories for stressing, stressing operations and grouting	MT	241	29.30	147315.00	11785.20	159100.20
54	KSRRB M2200-15: Supplying, fitting and fixing in position true to line and level POT - PTFE bearings consisting of a metal piston	Nos.	230	28.19			
55	KSRRB M2200 -12: Supplying, fitting & fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel	Nos.	229	28.16			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(1064*8%)*300		344736.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(1064*8%)*180		206841.60
56	KSRRB M2600-9. Providing and laying of a strip seal Expansion joint catering of maximum horizontal movement upto 70 mm.	Rmt	247	31.9	14514.00	1161.12	15675.12
57	Anti carbonate painting with approved colour as per specifications	Sqm					200.00
58	KSRRB M500-10. Tack Coat: Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm	Sqm	172	21.10.1	10.26	0.82	11.08
59	KSRRB M2700-1. Providing and laying 12mm thick mastic asphalt wearing coarse on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29.	Sqm	250	32.1	221.00	17.68	238.68
60	KSRRB M2700-5 Drainage Spouts complete as per drawing and Technical specification complete as per specifications NORTH Specification No. 2705	No.	250	32.5	1126.00	90.08	1216.08
61	KSRRB 13-9.1: Providing and fixing to wall, ceiling and floor, high density polyethylene pipes 6.00 kg/sq.cm working pressure 160mm outside	Rmt					1480.00
62	KSRRB M2700 -4. Providing fitting and fixing mild steel railing complete as per drawing and technical Specification.	M	250	32.4	2558.00	204.64	2762.64

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
63	KSRRB M2100 - 1.1. Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out, Add 10% Dewatering Charges	Cum	220	No. 27.1	80.70	8%	in Rs.
64	KSRRB M2100 - 17.1. Plain / Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. E. RCC Grade M-25.	Cum	223	27.30	4517.00	361.36	4878.3
65	Providing, casting, erection and assembling of 180 mm thick pre-cast RCC fascia panel of M35 grade	Sqm		Data Rate			5500.00
66	KSRRB M300.53. Construction of embankment with approved material Gravel / Murrum with all lifts and leads, transporting to site, spreading	Cum	156	19.60	136.00	10.88	146.88
67	KSRRB 200-1: Cutting of trees girth from 600mm to 900mm including cutting of trunks, branches	Each	143	18.2	268.65	21.49	290.14
68	KSRRB 200-1: Cutting of trees girth from 1800mm to 2700mm including cutting of trunks, branches	Each	143	18.4	1119.00	89.52	1208.52
69	KSRRB M200-12.1. Dismantling of existing structures i) Lime/Cement Concrete. I. By Manual means, A. Lime Concrete, Cement Concrete Grade M 10 & below PCC	Each	144	18.17	226.00	18.08	244.08
70	KSRRB M200-12.1. Dismantling of existing structures i) Lime/Cement Concrete. I. By Manual means, B. Cement Concrete Grade M-15 & M-20.	Each	144	18.18	272.00	21.76	293.76
71	KSRRB M200-12.1. Dismantling of existing structures iii) Dismantling Stone Masonary B. Rubble Stone Masonry in Cement Mortar. SSM	Cum	145	18.27	180.00	14.40	194.40
72	Removing of Footpath Slab	Sqm	268	37.56	88.70	7.10	95.80
73	KSRRB 200-22.1: Dismantling of flexible pavements II. By Mechanical Means: A. Bituminous courses. NORTH Specification No. 202.	Cum	146	18.46	148.30	11.86	160.16
74	KSRRB 200-22.2: Dismantling of flexible pavements and disposal of dismantled materials I. By Manual Means: B. Granular courses. MORT&H Specification No. 202.	Cum	146	18.45	294.00	23.52	317.52
75	KSRRB M200-12.1. Dismantling of existing structures II. By Mechanical means, A. Cement concrete Grade M-15 & M-20.	Cum	144	18.20	300.00	24.00	324.00
76	KSRRB M200-12.1. Dismantling of existing structures v) Steel Work in all types of sections upto a Height of 5m above plinth level excluding Cutting of Rivet - A. Including dismembering.	tonne	145	18.33	860.00	68.80	928.80
77	Conveying the excavated earth, and disposal of debris etc.	Cum	147				
	Granite	Average weight in ton/cum	1.80				
	Basic rate for haulage of materials as per item No.17.4 KSRRB: M 100-4.1	Rs. 2.00 Tonne Km	2.00				
	Average weight of earth For 20 kms	2.00x1.80x20					
	Add loading & unloading item No.17.1 KSRRB M100-1				72.00		
					62.20		
					134.20	10.74	144.94

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
78	Conveying the excavated earth, and disposal of debris etc.	Cum	147				
	Steel	Average weight in ton/cum	7.85				
	Basic rate for haulage of materials as per item No.17.4 KSRRB:M 100-4.1	Rs. 2.00 Tonne Km	2.00				
	Average weight of earth For 20 kms	2.00x7.85x20			314.00		
	Add loading & unloading item No.17.1 KSRRB M100-1				100.50		
79	KSRRB M800-Portable barricade in construction Zone	Each	198	24.44	2050.00	164.00	2214.00
	KSRRB M800-43: Installation of a steel portable barricade						
80	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel	MT		Data Rate			61000.00
81	KSSRB M800 - Flagman KSSRB M800 - 46: Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag	Each	199	24.49	261.00	20.88	281.88
82	Providing and fixing project Display Board of size 1.80 vertical x 1.60 mts Horizontal made of cold rolled coil 16 Gauge	Each	81	8.47 (NHSR)	7510.00	450.60	7960.60
83	KSRB 2.6: Providing and filling sand in foundation upto plinth to required depth for sub-soil treatment	Cum	6	2.13	1207.00	96.56	1303.56
84	KSRRB M2200-15: Supplying, fitting and fixing in position true to line and level POT - PTFE bearings consisting of a metal piston	Nos.	230	28.19			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(341*8%)*500		184140.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(341*8%)*320		117849.60
85	KSRRB M2200 -12: Supplying, fitting & fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel	Nos.	229	28.16			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(1064*8%)*500		574560.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(1064*8%)*320		367718.40
86	KSRRB M2100-14 Reinforced cement concrete M20 with OPC cement @ 300kgs,	Cum	222	27.25	4075.00	326.00	4401.00
87	KSRB M800-5.2: Providing and Erecting overhead signs with a corrosion resistant 2mm thick aluminium alloy sheet reflectorised with high intensity retro-reflective	Sqm	192	24.6	5230.00	418.40	5648.40
88	KSRB 15.18.1: Applying red lead ready mix priming coat over new steel or other metal surface	Sqm	127	15.73	22.00	1.76	23.76
89	KSRB 15.18.2: Providing and applying enamel metal paint two coats (Excluding priming coat) over new steel	Sqm	127	15.74	71.00	5.68	76.68
90	KSRB 2.4: Refilling available excavated earth (excluding rock) in sides of foundations upto plinth	Cum	6	2.11	54.00	4.32	58.32

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road

Name of the Work: Construction of Integrated Underpass at Shivnagar 1st & 8th Main Road Junction

Rate Analysis for Underpass

(Based on Schedule of Rates for the year 2011-2012 PW, P&I WTD Bangalore Circle.)

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
1	KSRRB 200-1: Cutting of trees girth from 300mm to 600mm including cutting of trunks, branches and	Each	143	No.	134.35	10.75	145.10
2	KSRRB 200-1: Cutting of trees girth from 600mm to 900mm including cutting of trunks, branches	Each	143	18.2	268.65	21.49	290.14
3	KSRRB 200-1: Cutting of trees girth from 900mm to 1800mm including cutting of trunks, branches	Each	143	18.3	671.00	53.68	724.68
4	KSRRB 200-1: Cutting of trees girth from 1800mm to 2700mm including cutting of trunks, branches	Each	143	18.4	1119.00	89.52	1208.52
5	KSRRB 200-1: Cutting of trees girth from above 2700mm including cutting of trunks, branches	Each	143	18.5	2686.00	214.88	2900.88
6	KSRRB M200-12.1. Dismantling of existing structures i) Lime/Cement Concrete. I. By Manual means, A. Lime Concrete, Cement Concrete Grade M-10 & below PCC	Each	144	18.17	272.00	21.76	293.76
7	KSRRB M200-12.1. Dismantling of existing structures i) Lime/Cement Concrete. I. By Manual means, B. Cement Concrete Grade M-15 & M-20.	Each	144	18.18	256.00	20.48	276.48
8	Removing of Footpath Slab	Sqm	268	37.56	88.70	7.10	95.80
9	Removing B.S. Slab of Drain and Stacking	Sqm	28	5.32	44.00	3.52	47.52
10	KSRRB M200-12.1. Dismantling of existing structures iii) Dismantling Stone Masonary B. Rubble Stone Masonry in Cement Mortar. SSM	Cum	145	18.27	180.00	14.40	194.40
11	KSRRB M200-12.1. Dismantling of existing structures II. By Mechanical means, A. Cement concrete Grade M-15 & M-20.	Cum	144	18.20	300.00	24.00	324.00
12	KSRRB M200-17.2. Dismantling of existing structures v) Steel Work in all types of sections upto a Height of 5m above plinth level excluding Cutting of Rivet	tonne	145	18.33	860.00	68.80	928.80
13	Conveying the excavated earth, and disposal of debris etc., A. Including dismembering.	Cum	147				
14	Conveying the excavated earth, and disposal of debris etc., Add loading & unloading item No. 17.1 KSRRB M100-1	Cum	147				
	Basic rate for haulage of materials as per item No. 17.4 KSRRB M 100-4.1	Average weight in ton/cum		1.30			
	Average weight of earth For 20 kms	Km		2.00			
		2.00x1.30x20			52.00		
					62.20		
					114.20	9.14	123.34

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
	Debris	Average weight					
	in ton/cum						
	Rs. 2.00 Tonne						
	Km						
	2.00x1.30x20						
	52.00						
	62.20						
	114.20						
	9.14						
15	Conveying the excavated earth, and disposal of debris etc.,	Cum		147			123.34
	Debris	Average weight					
	in ton/cum						
	Rs. 2.00 Tonne						
	Km						
	2.00x1.30x20						
	52.00						
	62.20						
	114.20						
	9.14						
	Add loading & unloading item No.17.1 KSRRB M100-1						
	Average weight of earth For 20 kms						
	KSRRB: M 100-4.1						
	Basic rate for haulage of materials as per item No.17.4						
	Rs. 2.00 Tonne						
	Km						
	2.00x1.30x20						
	52.00						
	62.20						
	114.20						
	9.14						
16	KSRRB 300-1. Earthwork excavation by manual means in Ordinary soil involving an average horizontal	Cum		149	19.1	58.20	123.34
	shoulders with approved material / Gravel	Cum		156	19.62	162.00	174.96
17	KSRRB M300-55: Construction of sub-grade and earthen	Cum		156	19.62	162.00	174.96
18	KSRRB M400-7: Construction of granular sub-base by providing Coarse graded material.(Grading-I Material)	Cum		164	20.6.1	973.00	1050.84
19	KSRRB M400-17: Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam	Cum		166	20.18	982.00	1060.56
20	KSRRB M500-6: Providing and applying primer coat with bitumen emulsion on prepared surface	Sqm		171	21.6	37.58	40.59
21	KSRRB M500-8 Providing and applying tack coat on granular surface treated with primer at 7.5 kg per 10 sqm	Sqm		172	21.8	18.50	19.98
22	KSRRB 500-11: Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates	Cum		173	21.11.2	6009.82	6490.61
23	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 5 kg per 10 sqm,	Sqm		172	21.7	15.24	16.46
24	KSRRB M500-17: Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP	Cum		174	21.19.2	8200.13	8866.14
25	KSRRB M500-19 Providing and laying bituminous concrete 40mm thick with 40-60HMP batch type hot mix plant	Cum		175	21.22.4	10378.36	11208.63
26	Providing and fixing Pre cast solid cement concrete kerb stones made out of C/C 1:2:4	Nos.		28	5.30	230.00	248.40
27	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint	Sqm		191	24.1	44.90	48.49

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
28	KSRRB M800-13: Road Marking with Hot Applied Thermoplastic Compound with Reflecting Glass Beads on Bituminous Surface:	Sqm	193	24.15	398.00	31.84	429.84
29	KSRRB M800-35 Providing and fixing of road stud 100 x Nos.	Nos.	24.41	24.41	269.00	21.52	290.52
30	KSRRB M800-15: Supplying and Installation of delineators (road way indicators,	Nos.	194	24.19	338.00	27.04	365.04
31	KSRRB M800 - 20. Tubular Steel Railing on Medium Weight Steel Channel (ISM Series)	Rmt	24.24	24.24	1154.00	86.00	1240.00
32	KSRRB M800-2: Retro - Reflectors Traffic Signs: Providing and fixing of retro - reflectors cautionary	Each	191	24.2			
	90cm equilateral triangle				2708.00	216.64	2924.64
	60cm circular				2351.00	188.08	2539.08
	60cm x 45cm rectangular				2318.00	185.44	2503.44
	90cm high octagon				3363.00	269.04	3632.04
33	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures B.Mechanical Means (i) Depth upto 3m	Cum	220	27.4	37.95		
	Add 10% Dewatering Charges				3.80		
34	KSRRB M2100-13 Plain cement concrete in open foundation complete	Cum	222	27.24	3449.00	275.92	3724.92
35	Furnishing and Placing Reinforced cement concret in sub - structure as per drawing and Technical specification M-35 grade Height Upto 5m	Cum	228	28.7.18	5083.00	406.64	5489.64
36	KSRRB M2300-7.1. Furnishing and Placing Reinforced Pressressed cement concrete in super-structure as per drawing and Technical Specification M-35 grade	Cum	236	29.13.1	5482.00	438.56	5920.56
37	KSRRB M2300-06: Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications	MT	229	28.8	63217.32	5057.39	68274.71
38	KSRRB M2200-8: Providing weep holes in Reinforced concrete abutment	Rmt	229	28.10	1064.00	85.12	1149.12
39	KSRB 2.3 Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms	Cum	6	2.10	90.00	7.20	97.20
40	Furnishing and Placing Reinforced cement concret in sub - structure as per drawing and Technical specification e) RCC Grade M-20 - (i) Upto 5m Height.	Cum	227	28.7.9	4566.00	365.28	4931.28
41	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3	Sqm		Data Rate			1465.00
42	Providing and laying reinforced cement concrete pipe NP3 of 300mm dia for culverts including pointing ends	Rmt	257	34.6.1	1395.00	111.60	1506.60

Sl. No.	Description of Work	Unit	SR	Item No.	No.	Basic Rate	AW	Total Rate
43	KSRRB 2100-6: Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers.	Cum		221	27.14	1599.00	127.92	1726.92
44	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials 20mm Down Size	Cum						1194.00
45	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials 40mm Down Size	Cum						894.00
46	KSRB 14.6-2: Providing and laying heavy duty cobble stones 75mm thick interlock pavers	Sqm	108	14.7		719.00	57.52	776.52
47	M.S Grating for Catch Drains	Sqm						8765.00
48	KSRB 2-2.1: Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines	Cum	5	2.3		134.00	10.72	144.72
49	KSRB 4-1.3: Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm mortar 1:6	Cum	12	4.3		3518.00	281.44	3799.44
50	KSRB 5.2-3: Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6	Cum	25	5.6		2568.00	205.44	2773.44
51	KSRB 5.3-3: Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6	Cum	26	5.9		3006.00	240.48	3246.48
52	KSRB 4-1.6: Providing and laying in position plain cement concrete of nominal mix 1:2:4 using 20mm concrete solid blocks with compressive strength not less than 35 Kg/sqm	Cum	12	4.6		3959.00	316.72	4275.72
53	KSRB 5.1-1: Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3	Sqm	119	15.1		69.50	5.56	75.06
54	KSRB 15-3.9: Providing 18mm thick cement plaster in single coat with cement mortar 1:6	Sqm	120	15.17		138.00	11.04	149.04
55	KSRB 15-16.1: Providing and finishing external walls in two coats with waterproof cement paint	Sqm	124	15.53.2		60.00	4.80	64.80
56	KSRB 300-44 Scarifying top bituminous surface or surface dressing	Sqm	155	19.50		17.90	1.43	19.33
58	KSRB 300-45: Scarifying stone metal crust 50mm to 100mm thick	Sqm	155	19.51		35.80	2.86	38.66
59	KSRB M2100-2.1 Earthwork in excavation for foundation of structures B. Mechanical Means (i) Depth 3m to 6m	Cum	220	27.5		43.35		
	Add 10% Dewatering Charges					4.34		
60	KSRB M2100-3.2: Earth work in excavation for foundation of structures. II. Ordinary rock (not requiring blasting) B. Mechanical Means Depth upto 3m	Cum	220	27.8		47.69	3.81	51.50
	Add 10% Dewatering Charges					4.80		
						52.80	4.22	57.02

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
61	KSRRB M2100-4.2: Earthwork in excavation for foundation of structures. III. Hard rock (blasting prohibited) A. Mechanical Means	Cum	221	No.	300.00	8%	in Rs.
	Add 10% Dewatering Charges				30.00		
62	KSRRB M2100-20.2: Reinforced Cement Concrete in Open Foundation complete as per Drawing	Cum	224		4554.00	364.32	4918.32
63	KSRRB 2200-5.19: Reinforced cement concrete in sub-structure of Grade - 35 For Height upto 10m complete	Cum	228		5197.00	415.76	5612.76
64	KSRRB M2200-9: Providing and laying of Filter media with stone crushed aggregates satisfying the requirements	Cum	229		616.00	49.28	665.28
65	Back filling behind abutment, wing wall and return wall complete Granular Material	Cum	229		255.00	20.40	275.40
66	KSRB 2.4: Refilling available excavated earth (excluding rock) in sides of foundations upto plinth	Cum	6		54.00	4.32	58.32
67	Providing and fixing of MS Grating of size 260mm x 260mm	Nos.		Data Rate			2767.00
68	Anti carbonate painting with approved colour as per specifications	Sqm		Market Rate			200.00
69	KSRBM M2700-4: Providing fitting and fixing mild steel railing complete as per drawing and technical Specification.	M	250		2558.00	204.64	2762.64
70	KSRRB M600-1: Construction of dry lean cement concrete mix M5 with OPC cement @ 160Kgs. with 25mm and down size graded granite metal coarse aggregate	Cum	185		2553.00	204.24	2757.24
71	KSRRB M600-2: Cement Concrete Pavement: Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base	Cum	185		4707.00	376.56	5083.56
72	KSRRB M2100-15.1: Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. C. RCC Grade M-20.	Cum	222		4359.00	348.72	4707.72
73	KSRRB M2100-16.1: Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. D. PCC Grade M-25.	Cum	223		4455.00	356.40	4811.40
74	Providing and laying reinforced cement concrete pipe NP3 of 1200mm dia for culverts	Rmt	257		8395.00	671.60	9066.60
75	KSRB 12-6.3: Providing 20mm round footrest and fixing in manhole with 1:3:6 cement concrete block of 20x20x10cms.	Nos.	74		190.00	15.20	205.20
76	Providing and fixing M.S Manhole cover of size 600x600mm	Nos.		Data Rate			6222.00
77	KSRRB 3000: Filling Pot - holes and Patch Repairs with Bituminous Concrete, 40mm KSRRB M3000-5: Removal of all field material	Sqm	260		354.15	28.33	382.48
78	KSRRB M500-56.1: Providing and laying slurry seal consisting of a mixture of fine aggregates.	Sqm	181		21.64	71.56	5.72
							77.28

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
79	KSRRB M800-43: Installation of a steel portable barricade	Each	198	24.44	2050.00	164.00	2214.00
80	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel	MT		Data Rate			61000.00
81	Providing and fixing project Display Board of size 1.80 vertical x 1.60 mts Horizontal made of cold rolled coil 16 Gauge	Each	81	8.47 (NHSP)	7510.00	450.60	7960.60
82	KSRRB M800-45: Drum delineator in construction zone Provision of metal drum / empty bitumen drum delineator	Each	199	24.48	344.00	27.52	371.52
83	KSRRB M800 - Flagman KSRRB M800 - 46. Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag	Each	199	24.49	261.00	20.88	281.88
84	M.S Grating for Ramp drain	Sqm		Data Rate			21381.00
95	KSRRB M2100-14 Reinforced cement concrete M20 with OPC cement @ 300kg.	Cum	222	27.25	4075.00	326.00	4401.00
96	KSRRB M800-5.2. Providing and Erecting overhead signs with a corrosion resistant 2mm thick aluminium alloy sheet reflectorised with high intensity retro-reflective	Sqm	192	24.6	5230.00	418.40	5648.40
17	KSRB 15.18.1: Applying red lead ready mix priming coat over new steel or other metal surface	Sqm	127	15.73	22.00	1.76	23.76
88	KSRB 15.18.2: Providing and applying enamel metal paint two coats (Excluding priming coat) over new steel	Sqm	127	15.74	71.00	5.68	76.68
9	KSRRB M2300-8.1: For Solid Slab: Furnishing and Placing Reinforced / Prestressed Cement Concrete Case - II: Using Batching Plant, Transit Mixer & Concrete Pump. NORTH Specification No. 1500, 1600 & 1700 Height 5m to 10m	Cum	237	29.16.2	5393.00	431.44	5824.44
90	KSRRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super - structure complete	MT	241	29.29	63901.71	5112.14	69013.85
1	KSRRB M2700-7: Reinforced Cement Concrete M-30 approach slab including reinforcement and form work complete	Cum	250	32.7	7416.00	593.28	8009.28
92	KSRRB M500-10. Tack Coat: Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm	Sqm	172	21.10.1	10.26	0.82	11.08
93	KSRRB M2700-1. Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen	Sqm	250	32.1	221.00	17.68	238.68
	KSRRB 13-9.1: Providing and fixing to wall, ceiling and floor, high density polythene pipes 6.00 kg/sq.cm working pressure 160mm outside	Rmt		Market Rate			1480.00

BRUHAT BANGALORE MAHANAGARA PALIKE**Project: Proposed Improvements to Corridor along Selected Stretch of Chord Road****Name of the Work: Construction of Flyover at Basaveshwara Nagar 1st Main Road Junction****Rate Analysis for Flyover Works***(Based on Schedule of Rates for the year 2011- 2012PW, P&IWTB Bangalore Circle.)*

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
1	KSRRB M300-11. Excavation for road way in soil by mechanical means including cutting and pushing the earth to site of embankment	Cum	150	19.11	65.15	5.21	70.36
2	Conveying the excavated earth, and disposal of debris etc.,	Cum	147				
	Debris	Average weight in ton/cum		1.30			
	Basic rate for haulage of materials as per item No.17.4 KSRRB :M 100-4.1	Rs. 2.00 Tonne Km		2.00			
	Average weight of earth For 20 kms			2.00x1.30x20	52.00		
	Add loading & unloading item No.17.1 KSRRB M100-1				62.20		
					114.20	9.14	123.34
3	KSRRB M300-55: Construction of sub-grade and earthen shoulders with approved material / Gravel(Grading-1 Material)	Cum	156	19.62	162.00	12.96	174.96
4	KSRRB M400-7: Construction of granular sub-base by providing Coarse graded material,	Cum	164	20.6.1	973.00	77.84	1050.84
5	KSRRB M400-17: Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam	Cum	166	20.18	982.00	78.56	1060.56
6	KSRRB M500-6: Providing and applying primer coat with bitumen emulsion on prepared surface	Sqm	171	21.6	37.58	3.01	40.59
7	KSRRB M500-8 Providing and applying tack coat on granular surface treated with primer at 7.5 kg per 10 sqm	Sqm	172	21.8	18.50	1.48	19.98
8	KSRRB 500-11: Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates	Cum	172	21.11.2	6009.82	480.79	6490.61
9	KSRRB M500-7: Providing and applying tack coat on the prepared black topped surfaces at 5 kg per 10 sqm,	Sqm	172	21.7	15.24	1.22	16.46
10	KSRRB M500-17: Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP	Cum	174	21.19.2	8200.13	656.01	8856.14
11	KSRRB M500-19 Providing and laying bituminous concrete 40mm thick with 40-60HMP batch type hot mix plant	Cum	175	21.22.4	10378.36	830.27	11208.63
12	KSRRB M2100-13 Plain cement concrete in open foundation complete	Cum	222	27.24	3449.00	275.92	3724.92

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
13	Furnishing and Placing Reinforced cement concret in sub - structure as per drawing and Technical specification e) RCC Grade M-20 - (i) Upto 5m Height.	Cum	227	28.7.9	4566.00	365.28	4931.28
14	KSRRB M2300-06: Supplying, fitting and placing TMT bar reinforcement in sub - structure complete as per drawing and technical specifications	MT	229	28.8	63217.32	5057.39	68274.71
15	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete 1:1.5:3	Sqm	Data Rate				1465.00
16	Providing and laying reinforced cement concrete pipe NP3 of 300mm dia for culverts including pointing ends	Rmt	257	34.6.1	1395.00	111.60	1506.60
17	KSRRB M2200-8: Providing weep holes in Reinforced concrete abutment	Rmt	229	28.10	137.25	10.98	148.23
18	KSRRB 2100-6: Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers,	Cum	221	27.14	1599.00	127.92	1726.92
19	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials - 20mm down size	Cum	Data Rate				1194.00
20	Providing & Filling of Aggregates to required depth in drain trench including cost of all materials - 40mm down size	Cum	Data Rate				894.00
21	KSRRB- 14.6-2: Providing and laying heavy duty cobble stones 75mm thick interlock pavers	Sqm	108	14.7	719.00	57.52	776.52
22	M.S Grating for Catch Drains	Sqm	Data Rate				10940.00
23	KSRRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms	Cum	6	2.10	90.00	7.20	97.20
24	Removing B.S. Slab of Drain and Stacking	Sqm	28	5.32	44.00	3.52	47.52
25	Refixing stone slabs of drains and pointing in C.M.(1:3)	Sqm	28	5.33	55.00	4.40	59.40
26	KSRRB M2100-2.1 Earthwork in excavation for foundation of structures B.Mechanical Means (i) Depth upto 3m	Cum	220	27.4	37.95		
	Add 10% Dewatering Charges				3.80		
					41.75	3.34	45.08
27	Furnishing and Placing Reinforced cement concret in sub - structure as per drawing and Technical specification M-35 grade Height Upto 5m	Cum	228	28.7.18	5083.00	406.64	5489.64
28	KSRRB M2300-7.1. Furnishing and Placing Reinforced / Prestressed cement concrete in super-structure as per drawing and Technical Specification M-35 grade	Cum	236	29.13.1	5482.00	438.56	5920.56
9	KSRRB M 2200 5 - 1: Plain Cement Concrete in sub structure complete a) PCC Grade M15 - i) Upto 5m height.	Cum	226	28.7.1	3647.00	291.76	3938.76
30	KSRRB M2300 2.2: Furnishing and Placing Reinforced / Prestressed Cement Concrete in Super-structure as per drawing and technical specification M-20 Grade	Cum	233	29.4.1	4891.00	391.28	5282.28
1	KSRRB M2300 - 14. Supplying, fitting and placing TMT bar reinforcement in super - structure complete	MT	241	29.29	63901.71	5112.14	69013.85

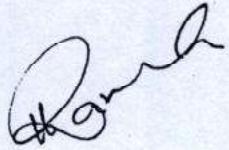
Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
32	KSRRB M2200-9: Providing and laying of Filter media with stone crushed aggregates satisfying the requirements	Cum	229	28.13	616.00	49.28	665.28
33	Back filling behind abutment, wing wall and return wall complete Granular Material	Cum	229	28.11	255.00	20.40	275.40
34	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint	Sqm	191	24.1	44.90	3.59	48.49
35	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete Size 450 x 200 x 400 mm	No.	28	5.29.1	269.00	21.52	290.52
36	KSRRB 2-2.1: Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines	Cum	5	2.3	134.00	10.72	144.72
37	KSRRB 4-1.3: Providing and laying in position plain cement concrete of nominal mix 1:4:8 using 40mm	Cum	12	4.3	3715.00	297.20	4012.20
38	KSRRB 5.2-3: Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6,	Cum	25	5.6	2568.00	205.44	2773.44
39	KSRRB 5.3-3: Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6,	Cum	26	5.9	3006.00	240.48	3246.48
40	KSRRB 4-1.6: Providing and laying in position plain cement concrete of nominal mix 1:2:4 using 20mm	Cum	12	4.6	3959.00	316.72	4275.72
41	KSRRB M800-13: Road Marking with Hot Applied Thermoplastic Compound with Reflecting Glass Beads on Bituminous Surface:	Sqm	193	24.15	398.00	31.84	429.84
42	KSRRB M800-15: Supplying and Installation of delineators (road way indicators,	Nos.	194	24.19	338.00	27.04	365.04
43	KSRRB M800-2: Retro - Reflectorised Traffic Signs: Providing and fixing of retro - reflectorised cautionary	Each	191	24.2			
	90cm equilateral triangle				2708.00	216.64	2924.64
	60cm circular				2021.00	161.68	2182.68
	90cm high octagon				3363.00	269.04	3632.04
44	KSRRB M800 - 20. Tubular Steel Railing on Medium Weight Steel Channel (ISMC Series)	Rmt	194	24.24	1154.00	92.32	1246.32
45	KSRRB M800-35 Providing and fixing of road stud 100 x 100 mm, die cast in aluminium	Nos.	197	24.41	269.00	21.52	290.52
46	KSRRB 1100. Bored cast - in -situ RCC Pile with OPC cement						
a	KSRRB M1100-3.2 B. Pile Diameter = 1000mm MORTH specifications No. 1100, 1600 & 1700	Rmt	201	25.4	7131.00	570.48	7701.48
b	KSRRB M1100-3.3 C. Pile Diameter = 1200mm, MORTH specifications No. 1100 & 1700	Rmt	201	25.5	9198.00	735.84	9933.84
a)	(A) Doing Initial vertical load test for a design pile load of 270 Tons including cost of all equipment	Nos.	150	12.37(a) (NHSR)	(300*6%)*270*2		171720.00
b)	(B) Doing Horizontal load test for a design pile load of 20 Tons	Nos.	150	12.37(b) (NHSR)	(5000*6%)*20*2		12000.00

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
48	KSRRB M1200-47: Providing steel liner 10mm thick for curbs and 6mm thick for seining	T	217	26.125	60310.00	4824.80	65134.80
49	KSRRB M1100 - 11.2 Cement Concrete for Reinforced Concrete in Pile Cap D.RCC mix M35	Cum	203	25.25	4621.00	369.68	4990.68
50	KSRRB 2300 - 11.3. Furnishing and Placing Reinforced / Prestressed cement concrete in super structure M-45 grade complete as per specifications. F.PSC Grade M45. MORTH Specification No.1500, 1600 & 1700- Height 5m to 10m	Cum	240	29.26.2	6884.00	550.72	7434.72
51	KSRRB M2700-9. Providing, precasting, transportation and placing in position precast post tensioned concrete girders	Cum	251	32.9	17988.00	1439.04	19427.04
52	KSRRB M2300-10.2. Furnishing and Placing Reinforced / Prestressed cement concrete in super - structure M-40 grade complete as per specifications. Case - II: Using Batching Plant,	Cum	239	29.22.2	5833.00	466.64	6299.64
53	KSRRB M2300 - 15. High tensile steel wires / strands including all accessories for stressing, stressing operations and grouting	MT	241	29.30	147315.00	11785.20	159100.20
54	KSRRB M2200-15: Supplying, fitting and fixing in position true to line and level POT - PTFE bearings consisting of a metal piston	Nos.	230	28.19			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(341*8%)*300		110484.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(341*8%)*180		66290.40
55	KSRRB M2200 -12: Supplying, fitting & fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel	Nos.	229	28.16			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(1064*8%)*300		344736.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(1064*8%)*180		206841.60
56	KSRRB M2600-9. Providing and laying of a strip seal Expansion joint catering of maximum horizontal	Rmt	247	31.9	14514.00	1161.12	15675.12
57	Anti carbonate painting with approved colour as per specifications	Sqm	Market Rate				200.00
58	KSRRB M500-10. Tack Coat: Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm	Sqm	172	21.10.1	10.26	0.82	11.08
59	KSRRB M2700-1. Providing and laying 12mm thick mastic asphalt wearing coarse on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29,	Sqm	250	32.1	221.00	17.68	238.68
60	KSRRB M2700-5 Drainage Spouts complete as per drawing and Technical specification complete as per specifications MORTH Specification No. 2705	No.	250	32.5	1126.00	90.08	1216.08
61	KSRRB 13-9.1: Providing and fixing to wall, ceiling and floor, high density polythylene pipes 6.00 kg/sq.cm working pressure 160mm outside	Rmt	Market Rate				1480.00

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
61	KSRRB 13-9.1: Providing and fixing to wall, ceiling and floor, high density polythylene pipes 6.00 kgf/sq.cm working pressure 160mm outside	Rmt	Market Rate				1480.00
62	KSRRM M2700 -4. Providing fitting and fixing mild steel railing complete as per drawing and technical Specification.	M	250	32.4	2558.00	204.64	2762.64
63	KSRRB M2100 - 1.1. Earthwork in excavation for foundation of structures as per drawing and technical specifications, including setting out,	Cum	220	27.1	80.70		
	Add 10% Dewatering Charges				8.07		
					88.77	7.10	95.87
64	KSRRB M2100 - 17.1. Plain / Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. E. RCC Grade M-25.	Cum	223	27.30	4517.00	361.36	4878.36
65	Providing, casting, erection and assembling of 180 mm thick pre-cast RCC fascia panel of M35 grade	Sqm	Data Rate				5500.00
66	KSRRB M300.53. Construction of embankment with approved material Gravel / Murrum with all lifts and leads, transporting to site, spreading	Cum	156	19.60	136.00	10.88	146.88
67	KSRRB 200-1: Cutting of trees girth from 600mm to 900mm including cutting of trunks, branches	Each	143	18.2	268.65	21.49	290.14
68	KSRRB 200-1: Cutting of trees girth from 1800mm to 2700mm including cutting of trunks, branches	Each	143	18.4	1119.00	89.52	1208.52
69	KSRRB M200-12.1. Dismantling of existing structures i) Lime/Cement Concrete. I. By Manual means, A. Lime Concrete, Cement Concrete Grade M 10 & below PCC	Each	144	18.17	226.00	18.08	244.08
70	KSRRB M200-12.1. Dismantling of existing structures i) Lime/Cement Concrete. I. By Manual means, B. Cement Concrete Grade M-15 & M-20.	Each	144	18.18	272.00	21.76	293.76
71	KSRRB M200-12.1. Dismantling of existing structures iii) Dismantling Stone Masonary B. Rubble Stone Masonry in Cement Mortar. SSM	Cum	145	18.27	180.00	14.40	194.40
72	Removing of Footpath Slab	Sqm	268	37.56	88.70	7.10	95.80
73	KSRRB 200-22.1: Dismantling of flexible pavements II. By Mechanical Means: A. Bituminous courses. MORTH Specification No. 202.	Cum	146	18.46	148.30	11.86	160.16
74	KSRRB 200-22.2: Dismantling of flexible pavements and disposal of dismantled materials I. By Manual Means: B. Granular courses. MoRT&H Specification No. 202.	Cum	146	18.45	294.00	23.52	317.52
75	KSRRB M200-12.1. Dismantling of existing structures II. By Mechanical means, A. Cement concrete Grade M-15 & M-20.	Cum	144	18.20	300.00	24.00	324.00
76	KSRRB M200-12.1. Dismantling of existing structures v) Steel Work in all types of sections upto a Height of 5m above plinth level excluding Cutting of Rivet - A. Including dismembering.	tonne	145	18.33	860.00	68.80	928.80
77	Conveying the excavated earth, and disposal of debris etc.,	Cum	147				

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
	Average weight of earth For 20 kms		2.00x1.80x20		72.00		
	Add loading & unloading item No.17.1 KSRRB M100-1				62.20		
					134.20	10.74	144.94
78	Conveying the excavated earth, and disposal of debris etc.,	Cum	147				
	Steel	Average weight in ton/cum		7.85			
	Basic rate for haulage of materials as per item No.17.4 KSRRB M 100-4.1	Rs. 2.00 Tonne Km		2.00			
	Average weight of earth For 20 kms		2.00x7.85x20		314.00		
	Add loading & unloading item No.17.1 KSRRB M100-1				100.50		
					414.50	33.16	447.66
79	KSRRB M800-Portable barricade in construction Zone KSRRBB M800-43: Installation of a steel portable barricade	Each	198	24.44	2050.00	164.00	2214.00
80	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel	MT	Data Rate				61000.00
81	KSSRB M800 - Flagman KSSRRB M800 - 46. Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag	Each	199	24.49	261.00	20.88	281.88
82	Providing and fixing project Display Board of size 1.80 vertical x 1.60 mts Horizontal made of cold rolled coil 16 Gauge	Each	81	8.47 (NHSR)	7510.00	450.60	7960.60
83	KSRB 2.6: Providing and filling sand in foundation upto plinth to required depth for sub soil treatment	Cum	6	2.13	1207.00	96.56	1303.56
84	KSRRB M2200-15: Supplying, fitting and fixing in position true to line and level POT - PTFE bearings consisting of a metal piston	Nos.	230	28.19			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(341*8%)*500		184140.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(341*8%)*320		117849.60
85	KSRRB M2200 -12: Supplying, fitting & fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel	Nos.	229	28.16			
	a) Guided/ fixed PTFE bearings 300MT vertical Capacity				(1064*8%)*500		574560.00
	b) Guided/ fixed PTFE bearings 180MT vertical Capacity				(1064*8%)*320		367718.40
	KSRRB M2100-14 Reinforced cement concrete M20 with OPC cement @ 300kgs,	Cum	222	27.25	4075.00	326.00	4401.00
	KSRRBM800-5.2. Providing and Erecting overhead signs with a corrosion resistant 2mm thick aluminium alloy sheet reflectorised with high intensity retro-reflective	Sqm	192	24.6	5230.00	418.40	5648.40
	KSRB 15.18.1: Applying red lead ready mix priming coat over new steel or other metal surface	Sqm	127	15.73	22.00	1.76	23.76

Sl. No.	Description of Work	Unit	SR	Item	Basic Rate	AW	Total Rate
			Page No.	No.	in Rs.	8%	in Rs.
89	KSRB 15.18.2: Providing and applying enamel metal paint two coats (Excluding priming coat) over new steel	Sqm	127	15.74	71.00	5.68	76.68
90	KSRB 2.4: Refilling available excavated earth (excluding rock) in sides of foundations upto plinth	Cum	6	2.11	54.00	4.32	58.32



DATA RATE FOR THE PRECAST SLAB 100MM THICK

Ref: As per PW, P&I WTD SR 2011 - 12

Quotation :

Consider-10Sqm (Size-1.8x0.6)

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Total Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M2200-6. Supplying, fitting and placing TMT bar reinforcement in sub-structure complete as per drawing and Technical Specifications complete as per specifications MORT&H Specification No.1600 & 2200	MT		2.016					
	(P.No.229, I.No.28.8 of PW,P&I WTD S.R 2011-12).								
	10mm @ 150 C/C		50	1.95			97.50		
	9.75x0.62=6.05kg						60.45		
	Distributions 8mm @ 200mm C/C		100	0.55			55.00		
	5.5x0.39=2.15 kg						21.45		
							81.90		
							0.082		
						Say	0.10	68274.36	6827.00
2	KSRRB M2100-15.1. "KSRRB M2100-14. Plain / Reinforced cement concrete M20 with OPC cement @ 320kgs, with 20 mm and down size graded granite metal coarse aggregates @ 0.69cum and fine aggregates @ 0.46cum, with superplasticiser @ 3lts confirming to IS9103-1999 Reaffirmed-2008, in open foundation complete as per Drawing & Technical specifications Case - I: Using Concrete Mixer" MORTH Specification No. 1500, 1700 & 2100	Cum							
	(P.No.222, I.No.27.26 of PW, P&I WTD SR 2011-12)								
	For Slab		10	1.80	0.60	0.10	1.08		
						Say	1.10	4707.72	5178.00
								Tota- A	12005.00
3	Labour charges for fixing of precast slab								
	(P.No.XXXXXVI, SI No 12 & 6 of PW, P&I WTD SR 2011-12)								
	Mason	per day	1				1	188.74	189.00
	Mazdoor /Bisti	per day	2				2	184.74	369.00
4	Pointing in CM(1:3) for drain slab	Cum	10	1.80	0.025	0.025	0.011		
	Materials:								
	Cement required is 35.7% =0.357 cum of Qt						0.57	580.00	333.00
	(P.No.IV, SI No 84 of PW, P&I WTD SR 2011-12)								
	Sand 1.07 per cum	Cum					0.01	950.00	11.00
	(P.No.II, SI No 28 of PW, P&I WTD SR 2011-12)								
	Labour								
	Mate 0.25per 1.0 cum	each	0				0.003	188.74	1.00
	(P.No.XXXXXVI, SI No 12 of PW, P&I WTD SR 2011-12)								
	Beldar 0.50per 1.0 cum								
	(P.No.XXXXXVI, SI No 6 of PW, P&I WTD SR 2011-12)								
		each	0.01				0.0056	184.74	1.00

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Total Quantity	Rate in Rs.	Amount in Rs.
	Water man 0.20 per 1.0 cum (P.No.XXXV, SI No 6 of PW, P&IWTD SR 2011-12)								
		each	0.002				0.0023	184.74	0.42
5	Transportation charges (Tractor) (P.No.XXXIX, SI No 37 of PW, P&IWTD SR 2011-12)								
		hour					8.00	162.00	1296.00
								Total-B	2200.42
6	Overhead charges @ 10% for item No 3,4&5								220.04
7	Add for Contractor Profit @ 10% for item No 3,4&5								220.04
									14645.50
							10Sqm	Say	14650.00
							Per Sqm		1465.00

DATA RATE FOR M.S GRATING (Catch Drain)

Ref: As per PW, P&IWTD SR 2011 - 12

Quotation :

Consider Drain of size of $0.50\text{m} \times 0.40\text{m} = 0.20 \text{ Sqm}$

[illegible]

DATA RATE FOR M.S GRATING (Shoulder Brain)

Ref: As per PW, P&IWTD SR 2011 - 12

Quatation :

Consider Drain of size of $0.260\text{m} \times 0.260\text{m} = 0.070 \text{ Sqm}$

[illegible]

Data Rate for fixing of Manhole Cover

Ref: As per PW, P&IWTDSR 2011 - 12

Consider-10Nos. Manhole Cover

Sl. No.	Description of work	Unit	No.	Total Quantity	Rate in Rs.	Amount in Rs.
1	C.I. Manhole cover 600 X 600 100KG WT	No	10	10.00	5009.00	50090.00
	(Pg No. XXXVI of PW,P & IWTDSR 2011-12)					
2	Labour charges for fixing of Cover					
	(P.No.XXXXVI, Item No.12 & 6 of PW, P&IWTDSR					
	Mason Class1	per day	0.5	0.5	188.74	94.37
	Mazdoor light/Bisti	per day	2	2	184.74	369.48
3	Transportation charges (Tractor)					
	(P.No.XXXIX, Sl No 37 of PW, P&IWTDSR 2011-12)					
		hour		8.00	162.00	1296.00
						51849.85
4	Overhead charges @ 10%					5184.99
5	Contractor Profit @ 10%					5184.99
						62219.82
					Say	62220.00
					Rate/ Cover	6222.00

DATA RATE FOR M.S GRATING FOR RAMP PORTION

Ref: As per PW, P&I WTD SR 2011 - 12

Consider Drain of size of 16x1.0 = 16.00 Sqm

Sl No	Description	Unit	No.	L	B	D	Qty	Rate in Rs.	Amount in Rs.
a	Materials :								
1	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel works as shown in drawing and as directed by the Engineer at all depths, using MS angles, channels, steel beams, rails, tees, plates, flats, rounds squares etc., of various sizes and other structural section confirming IS 2062 grade A, medium class GI pipes etc., including straightening, cutting, fabricating, welding, bending to slope fixing to position, welding to insert plate embedded in concrete and inclusive of 2coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all materials, labour, tools, tackets, cranes, devices and plants, wastage etc., as per specifications and drawings complete. Including cost of bolts, nuts, washers, clamps, welding, electrodes, and connections required for the work. Rate to include shims and packing peices etc., complete with all lead and lifts as directed by the Engineer-in-charge.	Sqm							
	Angle 90x90x10	Kgs	1	38.72	--	--	38.72		
	13.4 kg/m						518.85		
	Angle 100x100x10	Kgs	1	38.72	--	--	38.72		
	14.9 kg/m						576.93		
	M S Flats 12x90 @35mm c/c	458	1.00	0.012	0.090		0.495		
	0.495x7850kg/cum	--	--	--	--		3884.14		
	20mm Dia bar 3Nos (2.47 Kg /m)	3	16.00				48.00		
	50x50x6 Angle Holdfast @300 c/c	243	0.38	--	--		118.56		
	4.5 kg/m	--	--	--	--		93.15		
							419.16		
						Total Qty	5.518	42000.00	231740.00
b	For Fabrication, labour, cutting, welding, electricity etc., charges	Kgs							231740.00
	(as per quotation enclosed)						5517.63	20.00	110353.00
								Total	342093.00
							Rate per Sqm		21380.81
							Say Rs		21381.00

DATA RATE

Data Rate for Providing, Casting, Erection and Assembling of 180 mm thick Pre-Cast RCC Facia Panel

Sl. No.	Description	Unit	Quantity	Rate In Rs.	Amount in Rs
1	Providing, casting, erection and assembling of 180 mm thick pre-cast RCC facia panel of M35 grade aesthetically finished cruciform shape mechanically stabilized reinforced earth wall to the required line, grade and cross sections with hot dip high adherence strips and panel lugs of required length having width and thickness of 40 x 5mm at specified interval. Panels are to be seated in each other using two numbers EPDM rubber seating pad per panel. vertical joints should be covered with Geo-textile filter cloth glued to the panel and horizontal joints to be provided with 25 mm dia. Polyethylene foam joint filler, 160 mm dia. PVC pipe of 10 Kg./cm ² wrapped with non woven geo textile with perforation of 5mm dia. at staggered intervals of 10 cm c/c etc., complete as per approved drawing and specification including cost of hot dip high adherence strip, legs, geo-textile cloth, EPDM pad, polyethylene foam, joint fillers, tie strips, fasteners and all accessories, coping beam (if any), drainage layer, drain pipe etc cost of all materials, form work, cost of HYSD reinforcement steel				
	and fabrication design with all lead and lift, loading, unloading, stacking, hire charges of machineries as approved by the Engineer in charge as directed by the Engineer in charge.				
	Unit = 1Sqm				
a	As per Quotation from Reinforced Earth India Pvt., Ltd. (Quotation enclosed)	Sqm	1.00	3920.00	3920.00
b	Statuary Levies & applicable Taxes @ 15%				588.00
				Sub total A	4508.00
c	Add for Over Heads & Contingencies @ 12%				540.96
d	Add for Contractor Profit @10%				450.80
				Sub total B	5499.76
	Cost per Sqm			Say	5500.00

DATA RATE FOR THE PROVIDING AND LAYING 20mm GRANITE JELLY

Ref: As per PW, P&IWTD SR 2011 - 12

Quotation : '

"Consider 10 Cum"

Sl No	Description	Unit	No.	L	B	D	Qty	Rate in Rs.	Amount in Rs.
1	Providing and laying 20mm thick granite jelly including with all lead and lift, loading and unloading, tools, plants, cost of materials, labours and other incidental charges etc., complete as per specification and as per the directions by the Engineer in charge of the work.								
a	Materials :								
1	20mm nominal size granite jelly	Cum							
	(P.No.I, Item No. 14 of PW, P&I WTD SR 2011-12)		10	--	--	--	10	850.00	8500.00
								Total A:	8500.00
b	Labour Charges	Nos.							
	(P.No.XXXVI, Item No.12 & 6 of PW, P&I WTD SR 2011-12)								
1	Mason Class I		0.80	--	--	--	0.80	188.74	151.00
2	Mazdoor Light / Bisti		7	--	--	--	7.00	184.74	1293.00
								Total B:	1444.00
	Abstract								
a	Materials :								8500.00
b	Labour Charges								1444.00
									9944.00
c	Add Contractor's Profit @ 10%								994.40
d	Add Overhead Charges @ 10%								994.40
									11932.80
								Rate per cum	1193.28
								Say Rs.	1194.00

DATA RATE FOR THE PROVIDING AND LAYING 40mm GRANITE JELLY

Ref: As per PW, P&I WTD SR 2011 - 12

Quotation : ----

“Consider 10 Cum”

Sl No	Description	Unit	No.	L	B	D	Qty	Rate in Rs.	Amount in Rs.
1	Specification: Providing and laying 40mm thick granite jelly including with all lead and lift, loading and unloading, tools, plants, cost of materials, labours and other incidental charges etc., complete as per specification and as per the directions by the Engineer in charge of the work.								
a	Materials :								
1	40mm nominal size granite jelly	Cum							
	(P.No.I, Item No. 11 of PW, P&IWTD SR 2011-12)		10	--	--	--	10	600.00	6000.00
								Total A:	6000.00
b	Labour Charges	Nos.							
	(P.No.XXX XVI, Item No.12 & 6 of PW, P&IWTD SR 2011-12)								
1	Mason Class I		0.80	--	--	--	0.80	188.74	151.00
2	Mazdoor Light / Bisti		7	--	--	--	7.00	184.74	1293.00
								Total B:	1444.00
	Abstract								
a	Materials :								6000.00
b	Labour Charges								1444.00
									7444.00
c	Add Contractor's Profit @ 10%								744.40
d	Add Overhead Charges @ 10%								744.40
									8932.80
								Rate per cum	893.28
								Say Rs.	894.00

DATA RATE FOR SUPPLYING AND FABRICATING OF STRUCTURAL STEEL

Ref: As per PW, P&IWTD SR 2011 - 12

Qutation :

Sl No	Description	Unit	No.	L	B	D	Qty	Rate in Rs.	Amount in Rs.
a	Materials :								
1	Supplying, fabricating, erecting, and fixing in position, inserts and embedments, Truss, clamps, brackets, insert plates and all miscellaneous steel works as shown in drawing and as directed by the Engineer at all depths, using MS angles, channels, steel beams, rails, tees, plates, flats, rounds squares etc., of various sizes and other structural section confirming IS 2062 grade A, medium class GI pipes etc., including straightening, cutting, fabricating, welding, bending to slope fixing to position, welding to insert plate embedded in concrete and inclusive of 2coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all materials, labour, tools, tackets, cranes, devices and plants, wastage etc., as per specifications and drawings complete. Including cost of bolts, nuts, washers, clamps, welding, electrodes, and connections required for the work. Rate to include shims and packing peices etc., complete with all lead and lifts as directed by the Engineer-in-charge.	MT.							
	(P.No.XIV, Item No.385 of PW, P&IWTD SR 2011-12)							41000.00	41000.00
b	For Fabrication, labour, cutting, welding, electricity etc., charges	Kgs							
	(as per quotation enclosed)		--	--	--	--		20.00	20000.00
								Rate per Kg	61000.00
								Say Rs	61000.00

Sri Kalikamba Fabrication Work

Peenya 2nd Stage, Andrahalli Main Road, Syndicate Bank Stop,
1st Main, 1st Cross, Bangalore - 560 091
Cell: 9743260506, 9742530013

Ref. No.:

Date : 20-11-2012

Dear Sir,

Sub: Quotation for MILD / HYSD / TMT / Structural Steel Fabrication Charges.

With Reference to the above we first of all thank you for the valued enquiry made with us towards MILD / HYSD / TMT / Structural Steel Fabrication Charges.

Here we are quoting our charges

Sl. No.	Description	Unit	Rate in Rs.
1	Fabricating, erecting and fixing in position, inserts and embedment, Truss, Clamps, Brackets, Inserts Plates and all miscellaneous Steel Works as shown in Drawing and as directed by the Engineer at all the depths, using MS Angles, Channels, Steel Beams, Rails, Tees, Plates, Flats, Rounds, Squares, etc. of various sizes and other Structural Sections conforming IS:2062 Grade A, medium class GI Pipes, etc. including straightening, cutting, fabricating, welding, bending to slope fixing in position, welding to insert plate embedded in concrete and inclusive of 2 coats of enamel paint over one coat of metal primer. The rate quoted is to include the cost of all Labours, Tools, Tackets, Cranes, Devices and Plants, Welding Electrodes, Bolts, Nuts, Washers, Clamps, Connections, Shims and Packing pieces, etc. required for the Work as per the Specification and Drawings complete with all lead and lifts as directed by the Engineer - in - charge	Kg.	20.00

We trust that our offer falls in line with your requirement and looking forward to the pleasure of executing your valued order.

Thanking you and assuring you of our sincere support and services at all times

Navendu T.V.
SRI KALIKAMBA FABRICATION
1st Main, 1st Cross, Peenya 2nd Stage,
Andrahalli Main Road, Syndicat Bus Stop,
BANGALORE - 560 091.

Detailed Cost Estimate for Utility Shifting



Total	SKM	0.80
Total	CKM	1605.00

Summary of Expenditure	Capital 134 A	Total	Passed For
CASH:			
Primary Distribution	0	0	
Local Distribution	0	0	
Labour		264963.79	
Local Purchases		1975.00	
Over head Charges as per Annexure		0	
Misc. & Unforeseen		0.00	
Gross Cash Expenditure		266938.79	
Deduct anticipated sale proceeds of unserviceable stores			
Net Cash Expenditure		266938.79	
STORES:(UNDER CASH PURCHASE)		1508505.45	
Value of stores to be issued from stock			
Deduct - Value of serviceable recovered stores to be returned to stock at prescribed rates			
Net stores expenditure		1508505.45	
Total expenditure		1773444.24	
Over Hwead charges for Contribution work		640935	
Grand Total		2414379	

I consider that the quantities and rates provided are fair.

DEPUTY GENERAL MANAGER
Cable Planning
Bharath Sanchar Nigam Limited.
Bangalore-560 001.

Asst. Genl. Manager (CP)
BSNL BGD
सहायक मै. प्रबन्धक
ASST. GENERAL MANAGER
BSNL BGD
CANTONMENT
A. DIST.
Bangalore, Bangalore District,
बैंगलूर / Bangalore-560 001.

BSNL

BGTD

**BHARATH SANCHAR NIGAM LIMITED
O/O THE GENERAL MANAGER (DEVELOPMENT)
BANGALORE TELECOM DIST
BANGALORE 560001.**

Justification & Specification Report

This estimate provides for shifting copper cables along Chord road and service road due to construction of Flyovers and Underpasses along Chord road for signal free corridor from Manjunathanagar to 71st cross.

This is with reference to CE Project 1 letter No. CE9P-1/PR/24/12-13, dated 18.07.2012. BBMP.

This is a contribution estimate. Demand not will be raised to BBMP for making necessary payment towards shifting charges as per the est.

Following cables are required for shifting the copper cables

Size	Requirement
1. 2000 pr JF	100M
2. 1200 pr JF	450M
3. 800 pr JF	50M
4. 200 pr JF	50M This cable is required for attending faults during the execution of work by BBMP
5. 100 pr JF	100m do
6. 50 pr JF	50M do

Necessary lie diagram showing the details of existing cable and shifting details

This estimate is prepared as per the tender rates approved for cable laying works by HDD method and open trenching method for west areas.

Reinstatement charges payable to BBMP has not been charged in this estimate assuming that the BBMP will give permission for shifting.

Separate estimate is prepared for OF cable shifting.

The difference in cable length and trench length is due to jointing overlap and for termination tails at pillars.

Adequate provision is made for all items of stores, local purchases.

The work is of normal nature and no constructional difficulties are anticipated.

The work will be carried out by AGM NWO VIJ-N/ SDE Cables VIJ-N.

B. Manimaran
DEPUTY GENERAL MANAGER
Cable Planning
Bharath Sanchar Nigam Limited.
Bangalore-560 001.

[Signature]
ASST. GENL. MANAGER- CP
BSNL, BGTD
BANGALORE-1

सहायक मने प्रबंधक
ASST. GENERAL MANAGER
Cable Planning
Bharath Sanchar Nigam Limited.
Bangalore-560 001.

STORES

R/L No.	Item Details	Rate/Unit	Quantity	Amount
135615	2000/4 JF cable	1924.48 /M	100 M	192448.00
135428	1200/6.5 JF cable	2501.28 /M	450 M	1125567.00
135325	800/0.4 JF cable	886.51 /M	50 M	44325.50
134824	200/6.5 JF cable	315.56 /M	50 M	15778.00
134624	100/6.5 JF cable	219.54 /M	100 M	21954.00
134525	50/6.5 JF cable	119.39 /M	50 M	5969.50
131607	TSF Kit No.7	3774.65 /KIT	6 nos	22647.90
131606	TSF Kit No.6	1606.43 /KIT	6 nos	9638.58
131605	TSF Kit No.5	1041.82 /KIT	4 nos	4167.28
131604	TSF Kit No.4	813.78 /KIT	6 nos	4882.68
131603	TSF Kit No.3	403.62 /KIT	10 nos	4036.20
131602	TSF Kit No.2	362.62 /KIT	6 nos	2175.72
131652	Modular Connector			
	S - TYPE	22.77 /each	2000 nos	45540.00
	DP BOX-5 PR	235.02 /each	20 Nos.	4700.40
	SG Tape	8.4 /each	200 nos	1680.00
	100mm GI Pipe	397 /m	m	0.00
	Add for packing 1% (excl cables)			994.69
		Store	TOTAL	1506505.45

1.Labour

Excavating A type trenches including back filling	Rate	Qty	Amount
compacting and removing excess earth	50.85 per mtr	180 Mtrs.	9153.00
Tarmac/ Asphalt road	106.07 per mtr	45	4773.15
1D22: Asphalt road for more cables			0.00
8. Trenchless Boring & Laying cable	465.78 per mtr	440 Mtrs.	204943.20
c). From 101 to 150 mm dia / up to 2000pr cable			0.00
10. Pulling and laying of cables in trenches.	3.14 per mtr	50 Mtrs.	157.00
i) up to 50 pairs	4.27 per mtr	150 Mtrs.	640.50
1) 100/200 pairs	15.69 per mtr	0 Mtrs.	0.00
ii) 400 pairs	21.58 per mtr	50 Mtrs.	1079.00
iv) 800 pairs	13.39 per mtr	100 Mtrs.	1339.00
v) 1200 prs and above		0	0.00
18. Jointing of cables (straight & branched)			0.00
- joints and end to end testing.	476.86 /joints	6 nos	2861.16
a. Up to 50 prs.	576.12 /joints	10 nos	5761.20
b. 100 prs.	678.95 /joints	6 nos	4073.70
c. 200 prs	878.73 /joints	0 nos	0.00
d. 400 prs.	1281.81 /joints	4 nos	5127.24
e. Above 400 prs. 1) 800 prs	1684.89 /joints	6 nos	10109.34
2) 1200 prs	2491.05 /joints	6 nos	14946.30
3) 2000 prs			
LABOUR TOTAL			264963.79

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2. LOCAL PURCHASE (inclusive of all Taxes & Duties)

i) Kerosene oil.	45 per ltr.	30 ltrs.	1350.00
ii) Cotton waste.	25 per Kg.	25 Kgs.	625.00
LOCAL PURCHASE		TOTAL	1975.00

3. MISCELLANEOUS

i. Reinstatement charges.	Rate	Qty	Amount
assuming BBMP will give permission because of their work, shifting is involved.			
MISC.		TOTAL	0.00

SUMMARY

	STORES		1508505.45
	CASH:		
1. Primary Distribution		0	
2. Local Distribution		0	
1. Labour		284963.79	
2. Local Purchase		1975.00	
3. Miscellaneous		0.00	
Cash	TOTAL	286938.79	286938.79
	GRAND TOTAL		1773444.24

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BHARATH SANCHAR NIGAM LIMITED

O/O the Divisional Engineer, Cable planning, Bangalore Telecom District,
Telephone house, 5th floor, Raj bhavan road,
BANGALORE -560001

Calculation of Cost particulars for Contribution Works
(Ref. Para 152,155,155A,455A of P&T manual Vol.-X)

ANNEXTURE

**Name of Work: Shifting of Copper cables along Chord road due to constructions of Flyovers
and Underpasses on Chord road by BBMP**

STORES(as per Estimate)	(I)	1506505.448	
FREIGHT ON STORES (0.5%)	(II)	7533	
Total	A	1514038	
Establishment Charges on (A) (13%)		196825	
Store Keeping Charges on Stores(9%)		135585	
Total	B	1846448	
CASH (as per Estimate)	(iii)	266939	
ESTABLISHMENT CHARGES on Cash(13%)	(iv)	24024	
Total Cash Expenditure including depl charges (iii + iv)	C	290963	
Total Cost of the work	B+C	D	2137412
Adhoc on B 15% for Contributory	E	276967	
Amount Recoverable	(D+E)	F	2414379
TO: THE Chief Engineer (Project-1)			
BBMP, NR Square			
BANGALORE 560 099.			

BSNL

BGTD

BHARATH SANCHAR NIGAM LIMITED
O/O THE GENERAL MANAGER (DEVELOPMENT)
BANGALORE TELECOM DISTRICT,
RAJABHAVAN ROAD, BANGALORE 560 001.

EST.NO.

This is a Contribution Estimate.

Estimate for shifting OF cables along Chord road due to construction of FLYovers and Underpasses by BBMP

Summary of Expenditure	Capital	Total	Passed For
	134 A		
CASH:			
Primary Distribution	0	0	
Local Distribution	0	0	
Labour	418031.42	418031.42	
Local Purchases	36338.15	36338.15	
Extra Establishment			
Misc. & Unforeseen	134401.68	134401.68	
Over head charges as per the Annexure			
Gross Cash Expenditure	588771.25	588771.25	
Net Cash Expenditure	588771.25	588771.25	
STORES (UNDER CASH PURCHASE)			
Value of stores to be issued from stock	NIL	NIL	
Deduct - Value of serviceable recovered stores to be returned to stock at prescribed rates			
Net stores expenditure	135096.06	135096.06	
Total	743867.30	743867.30	
Over Head charges for contributory works		140051.71	
Gross Total Expenditure		883919.01	
	Rounded	883919	

I consider that the quantities and rates provided are fair.

ASST. GENERAL MANAGER

PLANNING

ASST. GENERAL MANAGER

CABLE PLANNING

Bangalore Telecom District,

Bangalore-560 001.

DEPUTY GENERAL MANAGER

Cable Planning

Bharath Sanchar Nigam Limited.

Bangalore-560 001.

00738



Justification and Specifications.

This estimate provides for shifting PLB pipes and OF cables along Chord road and service road due to construction of Flyovers and Underpasses along Chord road for signal free corridor from Menjunathanagar to 71st cross.

This is with reference to CE Project 1 letter No. CE9P-1)/PR/24/12-13, dated 18.07.2012. BBMP.

This is a contribution estimate. Demand note will be raised to BBMP for making necessary payment towards shifting charges as per the estimate.

Following pipes and cables are required for shifting OF cables

- PLB Pipes ——— 2300M
- 2. 24F OF cable — 1000M
- 3. 96F OF cable — 300M

Necessary lie diagram showing the details of existing cable and shifting details

This estimate is prepared as per the tender rates approved for OF cable laying works by HDD method

A separate estimate is prepared for shifting copper cables

Reinstatement/HDD charges payable to BBMP has been charged in this estimate as it is not possible to shift the cable at Shivanagar Jn where excavation is done and requires different route.

Separate estimate is prepared for copper cable shifting.

The difference in cable length and trench length is due to coils at joints to maintain minim distance.

Adequate provision is made for all items of stores, local purchases.

The work is of normal nature and no constructional difficulties are anticipated.

The work will be carried out by AGM Trns Mtce/ SDE Trns Mtce VIJ.

ASST. GENL. MANAGER
Cable PLANNING, BGTD.

सहायक महा प्रबंधक
ASST. GENERAL MANAGER

काबल प्लानिंग
CABLE PLANNING

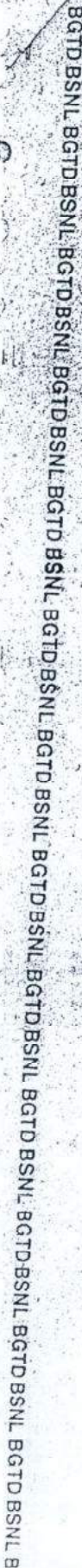
बैंगलूर
Bangalore Telecom District,
बैंगलूर/Bangalore-560001

DEPUTY GENERAL MANAGER

Cable Planning

Bharath Sanchar Nigam Limited.

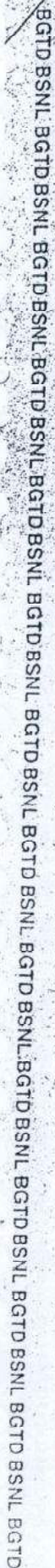
Bangalore-560 001.



III. Labour		RATE		QTY		AMOUNT	
1. Digging & trenching, filling back in stages, ramming to bring to normal condition on assorted surface and road crossings of Optic Fibre cable at 1.65mtr. depth & 0.45mtr. width etc							
	65.14	per mtr	20	Mtrs.			1302.80
2. Trenchless Boring by HDD method							
a) PLB upto 60mm dia for 1PLB	298.1	per mtr	0	Mtrs.			0.00
b) from 61 mm to 100 mm dia for 2-PLB	372.62	per mtr	780	Mtrs.			290643.60
c) 101 to 150 mm Dia for 4PLB pipes	465.78		160	Mtrs.			69867.00
4. laying GI pipe up to 80mm Dia on bridges above 80mm dia							
	10.55	per mtr	0	Mtrs.			0.00
	24.57	per mtr	30				737.10
3. opening of manholes 8mm rope pulling & pulling OF cables & other works, B/filling OF cable pulling thro' duct/HDPE pipes							
	0	per mtr	0	Mtrs.			0.00
I. Up to 24F	6.36	per mtr	1000	Mtrs.			6360.00
II. Above 24F	7.64	per mtr	300	Mtrs.			2292.00
5. Digging pit for it chr. Fixing of RCC pre cast chr with sand and 'O' ring dia 1.2m							
	1525.1	per pit	6	Nos.			9150.60
6. Digging pit and fixing of joint/route indicator, painting and sign writing							
	44.86	per indica	15	Nos			672.90
9. Documentation	320.4		1	km			320.4
7) Providing RCC protection at site w/o WM							
	1317.23	per cum	0.5	c.Mtrs.			658.62
OF cable splicing works							
splicing of 96F cable in FDMS exge rack	8017.2	each	0	nos			0.00
splicing of 96F cable insites	8017.2	each jt	2	nos			16034.40
24F cable jointg in routes	4998	jt/mn	4	nos			19992.00
Total Labour							418031.42



		SUMMARY	
	STORES		155096.06
	CASH:		
1. Primary Distribution		0	
2. Local Distribution		0	
3. Labour		418031.42	
4. Local Purchase		36338.15	
5. Miscellaneous		134401.68	
	CASH TOTAL	588771.23	588771.23
	GRAND TOTAL		743867.30



2

ANNEXTURE

0073

Karnataka Power Transmission Corporation Limited

Estimate No.: SE (E)/Tr(M)/BMAZ (N)/AEE (E)/EHV Cable/2012-13/

dated:

Provisional estimate for the work of rerouting of 66 kV single circuit XLPE insulated lead sheathed 630 sqmm Copper UG Cable with connected civil works running from 220/66 kV NRS to 66/11 kV Brigade Gateway MUSS for a distance of 150 meters for facilitating construction of flyover on WOC Road, near Manjunathnagar entrance road by BBMP under "Deposit Contribution Works".

Ref: Letter No.:CEE/TBZ/SEE(O)/AE-1/12-13/5443-46 dated 21.7.2012 of the Chief Engineer, Electy., Transmission Zone, KPTCL, Bangalore enclosing therein letter No.CE(P1)/PR/24/12-13 dated 18.7.2012 of the Chief Engineer (Projects-1), BBMP, Bangalore.

ABSTRACT

Sl. No.	Component	Amount in Rs
1	Material Cost 'PART A' (Cable, jointing kit, slabs, sand, route markers, etc.)	3,897,510.00
2	Spares @ 3% on Material cost.	116,925.00
3	Transportation charges @ 4 % on Material cost	155,900.00
4	Labour Cost 'PART B' (laying of cable, jointing, excavation, backfilling, etc.)	348,793.50
5	Civil Engineering 'PART C' (Joint Bays)	258,000.00
6	Work contract tax @ 14% on 70% of Civil Engineering part	25,284.00
7	Service tax @ 10.3% on 30% of Civil Engineering cost	7,972.20
8	Total works Cost (Sl. No. 1 to 7)	4,810,384.70
9	Establishment/ Administrative/ Oyer head charges/ Employees Cost @ 20% on works cost.	962,076.94
10	Contingencies @ 5 % on (Sl. No 8+9)	288,623.08
11	Sub total Sl. No.8 to 10	6,061,084.72
12	IDC @ 4 % on Sl. No. 11	242,443.39
13	Electrical Inspectorate Charges (L/S)	50,000.00
14	Total Project Cost (Sl. No. 11+12+13)	6,353,528.11

Say 6,353,528.00

(Rupees Sixty Three Lakh Fifty Three Thousand Five Hundred and Twentyeight only)



ಬೆಂಗಳೂರು ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ನಿಯಮಿತ

Bangalore Electricity Supply Company Limited

ಫೋನ್ : 23132292 ಫ್ಯಾಕ್ಸ್ : 23132291
ಇ-ಮೇಲ್ : eenorth.work@gmail.com
ಮೊಬೈಲ್ ನಂ. 94498-44608

ಕಾರ್ಯ ನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್(ಎ)
(ವಾ, ಕಾ ಮತ್ತು ಪ) ರವರ ಕಛೇರಿ
ರಾಜಾಜಿನಗರ ವಿಭಾಗ, ಬಿ.ವಿ.ಕಂ.,
ಬೆಂಗಳೂರು - 10.

ಕ್ರಮಾಂಕ : ಕಾನಿಇಂ(ಎ)/ರಾವಿ/ಸಕಾಇಂ(ಕ)/ಕಿ.ಇಂ-1/2011-12 90/5 ದಿನಾಂಕ : 08-08-2012

ಇಗತ್ತು: 20ನೇ ಕಡತ
ಇವರಿಗೆ,

ಮುಖ್ಯ ಇಂಜಿನಿಯರ್(ಎ), (ವಾ, ಕಾ ಮತ್ತು ಪ),
ಬೆಂಗಳೂರು ಮಹಾನಗರ ಕ್ಷೇತ್ರವಲಯ, ಬೆವಿಕಂ,
ಫೋನ್, ಬಾಕ್ಸ್ ನಂ. 5163, 14/3, 3ನೇ ಹಂತ,
ಮಹರ್ಷಿ ಅರವಿಂದಭವನ್, ನೃಪತುಂಗರಸ್ತೆ,
ಬೆಂಗಳೂರು,

ಮಾನ್ಯರ,

ವಿಷಯ : ರಾಜಾಜಿನಗರದ ಕಾರ್ಡ್ ರಸ್ತೆಯ ಆಯ್ದ ಕೂಡ ರಸ್ತೆಯ ಭಾಗದ ಅಭಿವೃದ್ಧಿ ಕಾಮಗಾರಿ ಬಗ್ಗೆ.

- ಉಲ್ಲೇಖ : 1. ಬಿ.ಬಿ.ಎಂ.ಪಿ ಮುಖ್ಯ ಅಭಿಯಂತರರು(ಯೋಜನೆ-1) ಪತ್ರ ಸಂಖ್ಯೆ : ಮು.ಅ(ಯೋ-1)ಎಲ್/454/10-11/30.11.2010
2. ತಮ್ಮ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ : ಮುಇಂ(ಎ)ಬೆಂಮುಕ್ಷೇವ/ಅ.ಇ/ಸ.ಕಾ.ಇ-4/10202-04/13.12.2010
3. ಈ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ : EEE(Ele)/RD/AEE(o)/AE-3/2011-12/7907-09
4. ತಮ್ಮ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ : CEE/BMAZ/SEE(O)/AEE-4/F-165/1900-02/22.2012

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಮುಖ್ಯ ಅಭಿಯಂತರರು(ಯೋಜನೆ-1) ಬಿ.ಬಿ.ಎಂ.ಪಿ ರವರು ಉಲ್ಲೇಖ
ಪತ್ರ-1 ರಲ್ಲಿ ರಾಜಾಜಿನಗರದ ಕಾರ್ಡ್ ರಸ್ತೆಯ ಆಯ್ದ ಕೂಡ ರಸ್ತೆಗಳ ಅಭಿವೃದ್ಧಿ ಕಾಮಗಾರಿಗಳ ಯೋಜನಾ ವರದಿಯನ್ನು
ಸರ್ಕಾರದ ಅನುಮೋದನೆಗೆ ಸಲ್ಲಿಸಲಾಗಿದೆ ಎಂದು ತಿಳಿಸಿರುತ್ತಾರೆ. ಅದರಂತೆ ಸರ್ಕಾರವು ಸದರಿ ಯೋಜನೆಯ ಕೂಡ ರಸ್ತೆಯ
ಸ್ಥಳಗಳಲ್ಲಿ ಹಾಲಿಯಿರುವ ವಿದ್ಯುತ್ ಮಾರ್ಗಗಳನ್ನು ಸ್ಥಳಾಂತರಿಸುವ ಬಗ್ಗೆ ವಿವರವಾದ ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸಲು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರವರಿಗೆ ಸೂಚಿಸಿರುವುದರಿಂದ ಸದರಿಯವರು ಬೆವಿಕಂಗೆ ವಿವರವಾದ ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸಲು
ತಿಳಿಸಿರುತ್ತಾರೆ. ಪ್ರಯುಕ್ತ ಬಿ.ಬಿ.ಎಂ.ಪಿ ರವರು ಈ ಕಛೇರಿಗೆ ಯೋಜನೆಗೆ ಸಂಬಂಧಿಸಿದ ಜಿ.ಎ.ಡಿ ಯನ್ನು ಲಗತ್ತಿಸಿ ಅಂದಾಜು
ಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸಲು ತಿಳಿಸಿರುತ್ತಾರೆ. ಅದರಂತೆ ವಿವರವಾದ ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು ತಯಾರಿಸಿ ಉಲ್ಲೇಖ 3 ರಲ್ಲಿ ಅಧೀಕ್ಷಕ
ಇಂಜಿನಿಯರ್(ಎ), ಬೆಂಗಳೂರು ಉತ್ತರ ವೃತ್ತ ರವರಿಗೆ ಸಲ್ಲಿಸಲಾಗಿತ್ತು. ನಂತರ ತಮ್ಮ ಕಛೇರಿ ಪತ್ರ ಉಲ್ಲೇಖ 4 ರಲ್ಲಿ ಸದರಿ
ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು ಹಿಂತಿರುಗಿಸಿ ರೇಟ್ ಕಾಂಟ್ರಾಕ್ಟ್ ದರಪಟ್ಟಿ ದರದಂತೆ ತಯಾರಿಸಿ ಸಲ್ಲಿಸಲು ತಿಳಿಸಲಾಗಿದೆ. ಆದರೆ ಈ
ಸೇರಿಯಿಂದ ಸಲ್ಲಿಸಿದ್ದ ಅಂದಾಜು ಪಟ್ಟಿಯ ಮೊಬಲಗನ್ನು ಕೇವಲ ಯೋಜನಾ ವರದಿಯಲ್ಲಿ ಸೇರಿಸಿ ಸರ್ಕಾರಕ್ಕೆ
ಸಲ್ಲಿಸಬೇಕಾಗಿದೆ ಎಂದು ಬಿ.ಬಿ.ಎಂ.ಪಿ ರವರು ತಿಳಿಸಿರುವ ಪ್ರಯುಕ್ತ ಹಾಲಿ ಚಾಲ್ತಿಯಲ್ಲಿರುವ (S.R) ದರದಂತೆ ಅಂದಾಜು
ಪಟ್ಟಿಯನ್ನು ತಯಾರಿಸಿ ಸಲ್ಲಿಸಲಾಗಿದೆ. ಬಿ.ಬಿ.ಎಂ.ಪಿ ರವರ ಮೂಲಗಳ ಪ್ರಕಾರ ಸದರಿ ಕಾಮಗಾರಿಗಳನ್ನು ಶೀಘ್ರದಲ್ಲಿ
ಪ್ರತಿಷ್ಠಾಪನೆಯಾದ ಯಾವುದೇ ಪ್ರಸ್ತಾಪವಿರುವುದಿಲ್ಲ. ಆದ್ದರಿಂದ ಸದರಿ ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಮುಖ್ಯ
ಅಭಿಯಂತರರು(ಯೋಜನೆ-1) ರವರಿಗೆ ಕಳುಹಿಸಿಕೊಡಲು ಮತ್ತೊಮ್ಮೆ ಸಲ್ಲಿಸುತ್ತಿದ್ದೇನೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

(ಕೆ. ತಿಪ್ಪೇಸ್ವಾಮಿ),

ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್ ಎ(ವಾ, ಕಾ ಮತ್ತು ಪ)
ರಾಜಾಜಿನಗರ ವಿಭಾಗ.

ಮುಖ್ಯ ಅಭಿಯಂತರರು(ಯೋಜನೆ-1)

ಬೆಂಗಳೂರು ಮಹಾನಗರ ಕ್ಷೇತ್ರ ವಲಯ

ಸಹಾಯಕ ಸಂಖ್ಯೆ: S.37.0

ದಿನಾಂಕ: 13-9-12



BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED

(Wholly owned Government of Karnataka undertaking)

To: CEE/BMAZ/SEE (O)/AEE-4/F-165

Encl: ① file
1. No.: 080-22113868

2. No.: 080-22113839

3. No.: 9449045888

4. Mail ID: ceebmaz.work@gmail.com

5. ne Superintending Engineer (Ele),
6. O&M, North Circle,
7. BESCOM, N.T. Road
8. Bangalore-560001

Office of the Chief Engineer, Ele.,
[C,O&M], BMAZ, No. 14/3, 3rd Floor,
Maharshi Aravinda Bhavan,
Nrupatunga Road, Bangalore-01.

Date: **02 FEB 2012**

Sir,

Sub:- Shifting of DTC's, HT & LT Lines of F-3, F-16, F-17, F-23, F-31 of NRS at west of Chord road as per the request of chief Engineer, BBMP for carrying out the work of fly over & under pass under rate contract basis.

Ref:- 1. Ltr. No. EEE (Ele) /RD/AEE(o)/AE-3/2011-12/7907-09 of Executive Engineer (Ele.,) Rajajinagar Division BESCOM.
2. Ltr. No. CE (Ele),/GL/89/2011-12 dtd 24.01.2012 of chief Engineer (Ele), BBMP, Bangalore.

Inviting your attention to the above subject, Chief Engineer (Ele), BBMP vide letter cited under reference (2) has intimated to carry out Electrical utilities Shifting work under Rate Contract Basic (Copy enclosed for your ref) but the estimates furnished by Executive Engineer (Ele.,) Rajajinagar are prepared under current schedule of Rate.

Therefore, you are hereby directed to re-submit the estimates under rate contract basis which will enable T.O. to take up the work on priority basis.

Please treat the matter as "**MOST URGENT.**"

Yours faithfully,

(Ashok Angadi)
Chief Engineer Ele.,
(C, O&M), BMAZ, BESCOM.

Copy to:

1. Executive Engineer (Ele.), (C,O&M, Rajajinagar Divisions, BMAZ, BESCOM, Bangalore to ensure and to prepare estimates under RC (along with file)
2. Asst. Executive Engineer (Ele.), (C,O&M), N-3 sub division, BESCOM, Bangalore to ensure and to prepare estimates under RC
3. AEE-4/MF/F-165.

ಬೆಂಗಳೂರು ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ನಿಯಮಿತ

(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸಂಪೂರ್ಣ ಸ್ವಾಮ್ಯಕ್ಕೆ ಒಳಪಟ್ಟಿರುತ್ತದೆ)

ಮುಖ್ಯ ಇಂಜಿನಿಯರ್ (ವಿ)/ಬೆಂಗಳೂರು/ಅಇ/ಸ.ಕಾ.ಇ-4/ಕ-166
ಕಡತ: 1 ಪತ್ರ

10202-04

ಮುಖ್ಯ ಇಂಜಿನಿಯರ್ (ವಿ) ರವರ ಕಛೇರಿ,
(ವಾಣಿಜ್ಯ, ಕಾರ್ಯ ಮತ್ತು ಪಾಲನೆ)
ಬೆಂಗಳೂರು ಮಹಾನಗರ ಕ್ಷೇತ್ರ ವಲಯ,
ನಂ. 14/3, 3ನೇ ಮಹಡಿ,
ಮಹರ್ಷಿ ಅರವಿಂದ ಭವನ,
ಬೆಂಗಳೂರು - 560 001.

13 DEC 2010

ಸಾರ್ವನಿರ್ವಾಹಕ ಇಂಜಿನಿಯರ್ (ವಿ).

ಉತ್ತರ ವಿಭಾಗ,

ಬೆ.ವಿ.ಕಂ, ಬೆಂಗಳೂರು.

ಮಾನ್ಯರೇ,

ವಿಷಯ: ರಾಜಾಜಿನಗರದ ಕಾರ್ಡ್ ರಸ್ತೆಯ ಆಯ್ದ ಕೂಡು ರಸ್ತೆಯ ಭಾಗದ ಅಭಿವೃದ್ಧಿ ಕಾಮಗಾರಿ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: 1. ಪತ್ರ ಸಂ: ಮು.ಅ(ಯೋ-1)/ಪಿಆರ್/454/2010-11 ದಿನಾಂಕ: 30.11.2010.

2. ಸರ್ಕಾರಿ ಪತ್ರ ಸಂಖ್ಯೆ UDD/493/MNY/2010 ದಿನಾಂಕ: 16.11.2010.

ಈ ಕಛೇರಿಗೆ ಉಲ್ಲೇಖ (1) ರ ಅನ್ವಯ ಮುಖ್ಯ ಇಂಜಿನಿಯರ್(ಯೋಜನೆ), ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ಬೆಂಗಳೂರು ರವರಿಂದ ಪತ್ರ ಸ್ವೀಕೃತಗೊಂಡಿದ್ದು ಪತ್ರದ ಅನ್ವಯ ರಾಜಾಜಿನಗರದ ಕಾರ್ಡ್ ರಸ್ತೆಯ ಆಯ್ದ ಕೂಡು ರಸ್ತೆಯ ಭಾಗದ ಅಭಿವೃದ್ಧಿ ಕಾಮಗಾರಿಗಳ ಯೋಜನಾ ವರದಿಯನ್ನು ಸರ್ಕಾರದ ಅನುಮೋದನೆಗೆ ಸಲ್ಲಿಸಲಾಗಿತ್ತು.

ಉಲ್ಲೇಖ ಪತ್ರದಲ್ಲಿ ಸರ್ಕಾರವು, ಸದರಿ ಯೋಜನೆಯ ಕೂಡು ರಸ್ತೆಯ ಸ್ಥಳಗಳಲ್ಲಿ ಹಾಲಿ ಇರುವ ವಿದ್ಯುತ್ ಮಾರ್ಗ ಸ್ಥಳಾಂತರಿಸುವ ಬಗ್ಗೆ ವಿವರವಾದ ಅಂದಾಜುಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸಲು ಕೋರಿರುತ್ತಾರೆ.

ಈ ವಿವರಗಳನ್ನು ತುರ್ತಾಗಿ ಸಲ್ಲಿಸಬೇಕಾಗಿರುವುದರಿಂದ ಕೂಡಲೇ ಮುಖ್ಯ ಇಂಜಿನಿಯರ್(ಯೋಜನೆ), ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ, ಬೆಂಗಳೂರು ರವರ ಕಛೇರಿಗೆ ಅಂದಾಜುಪಟ್ಟಿಯನ್ನು ಕಳುಹಿಸಿಕೊಡಲು ಕೋರಿದೆ. ಈ ಪತ್ರದೊಂದಿಗೆ ಯೋಜನೆಗೆ ಸಂಬಂಧಿಸಿದ ಜಿ.ಎ.ಡಿಯನ್ನು ಲಗತ್ತಿಸಿದೆ. ವಿವರಗಳನ್ನು ತುರ್ತಾಗಿ ಘನ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಬೇಕಾಗಿರುವುದರಿಂದ ಈ ಬಗ್ಗೆ ತುರ್ತು ಕ್ರಮ ವಹಿಸಲು ಕೋರಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ.

ಮುಖ್ಯ ಇಂಜಿನಿಯರ್ (ವಿ),
ಬೆಂಗಳೂರು ಮಹಾನಗರ ಕ್ಷೇತ್ರವಲಯ,
ಬೆ.ವಿ.ಕಂ, ಬೆಂಗಳೂರು.

AM20
pl-call AM20
+ 1/1

11/16/11

ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

ಸಂ: ಮು.ಅ(ಯೋ-1)/ಪಿಆರ್/ 454/2010-11

ಮುಖ್ಯ ಅಭಿಯಂತರರು
(ಯೋಜನೆ-1) ರವರ ಕಛೇರಿ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎನ್.ಆರ್.ಚೌಕ, ಬೆಂಗಳೂರು.
ದಿನಾಂಕ: 30-11-2010.

ಗೆ,

ಮುಖ್ಯ ಅಭಿಯಂತರರು (ವಿದ್ಯುತ್),
(ಸಿ.ಟಿ & ಎಂ), ಇ.ಎಂ.ಎ.ಜಡ್ ಸಂ 14/3,
3ನೇ ಹಂತ, ಮಹರ್ಷಿ ಅರವಿಂದ ಭವನ,
ನೃಪತುಂಗ ರಸ್ತೆ,
ಬೆಂಗಳೂರು.

ಮಾನ್ಯರೇ,

ವಿಷಯ: ರಾಜಾಜನಗರದ ಕಾರ್ಡ್ ರಸ್ತೆಯ ಆಯ್ಕೆ ಕೂಡು ರಸ್ತೆಯ ಭಾಗದ ಅಭಿವೃದ್ಧಿ.
ಕಾಮಗಾರಿ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: ಸರ್ಕಾರಿ ಪತ್ರ ಸಂಖ್ಯೆ UDD/493/MNY/2010 Dt: 16-11-2010.

ರಾಜಾಜನಗರದ ಕಾರ್ಡ್ ರಸ್ತೆಯ ಆಯ್ಕೆ ಕೂಡು ರಸ್ತೆಗಳ ಅಭಿವೃದ್ಧಿ ಕಾಮಗಾರಿಗಳ ಯೋಜನಾ
ವರದಿಯನ್ನು ಸರ್ಕಾರದ ಅನುಮೋದನೆಗೆ ಸಲ್ಲಿಸಲಾಗಿತ್ತು.

ಉಲ್ಲೇಖ ಪತ್ರದಲ್ಲಿ ಸರ್ಕಾರವು, ಸದರಿ ಯೋಜನೆಯ ಕೂಡು ರಸ್ತೆಯ ಸ್ಥಳಗಳಲ್ಲಿ ಹಾಲಿ ಇರುವ ವಿದ್ಯುತ್
ಮಾರ್ಗ ಸ್ಥಳಾಂತರಿಸುವ ಬಗ್ಗೆ ವಿವರವಾದ ಅಂದಾಜುಪಟ್ಟಿಯನ್ನು ಸಲ್ಲಿಸಲು ಕೋರಿರುತ್ತಾರೆ.

ಈ ವಿವರಗಳನ್ನು ತುರ್ತಾಗಿ ಸಲ್ಲಿಸಬೇಕಾಗಿರುವುದರಿಂದ ಕೂಡಲೇ ಸದರಿ ಕಛೇರಿಗೆ
ಅಂದಾಜುಪಟ್ಟಿಯನ್ನು ಕಳುಹಿಸಿಕೊಡಲು ಕೋರಿದೆ. ಈ ಪತ್ರದೊಂದಿಗೆ ಯೋಜನೆಗೆ ಸಂಬಂಧಿಸಿದ ಜಿ.ಎ.ಡಿಯನ್ನು
ಲಗತ್ತಿಸಿದೆ. ವಿವರಗಳನ್ನು ತುರ್ತಾಗಿ ಫನ ಸರ್ಕಾರಕ್ಕೆ ಸಲ್ಲಿಸಬೇಕಾಗಿರುವುದರಿಂದ ಈ ಬಗ್ಗೆ ತುರ್ತು ಕ್ರಮ
ವಹಿಸಲು ಕೋರಿದೆ.

BMAZ	
Date:	
1. C.A.	
2. S.E. (Tech)	
3. E.E. (DW)	
4. E.E. (E&M/PD)	
5. A.Q.	
6. P.S.	
7. A.O. E.C.E.	
CEE / BMAZ	

ಸಹಿಗೊಳ್ಳು ಉಲ್ಲೇಖ

1) Longitudinal section

2) Concept plan

ಮುಖ್ಯ ಅಭಿಯಂತರರು (ಯೋಜನೆ-1)
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

5/11/10

4.12.10

25

BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED

(Wholly owned Government of Karnataka undertaking)

CEE/BMAZ/SEE (O)/AEE-4/F-165

Encl: ①

Ph.No.: 080-22113868

Fax No.: 080-22113839

Mob.No.: 9449045888

Email ID: ceebmaz.work@gmail.com

To,

The Superintending Engineer (Ele),
C,O&M, North Circle,
BESCOM, N.T. Road
Bangalore-560001

Office of the Chief Engineer, Ele.,
[C,O&M], BMAZ, No. 14/3, 3rd Floor,
Maharshi Aravinda Bhavan,
Nrupatunga Road, Bangalore-01.

Date: **22 FEB 2012**

Sir,

Sub:- Shifting of DTC's, HT & LT Lines of F-3, F-16, F-17, F-23, F-31 of NRS at west of Chord road as per the request of chief Engineer, BBMP for carrying out the work of fly over & under pass under rate contract basis.

Ref:- 1. Ltr. No. EEE (Ele) /RD/AEE(o)/AE-3/2011-12/7907-09 of Executive Engineer (Ele.,) Rajajinagar Division BESCOM. 3
2. Ltr. No. CE (Ele), /GL/89/2011-12 dtd 24.01.2012 of chief Engineer (Ele), BBMP, Bangalore.

Inviting your attention to the above subject, Chief Engineer (Ele), BBMP vide letter cited under reference (2) has intimated to carry out Electrical utilities Shifting work under Rate Contract Basic (Copy enclosed for your ref) but the estimates furnished by Executive Engineer (Ele.,) Rajajinagar are prepared under current schedule of Rate.

Therefore, you are hereby directed to re-submit the estimates under rate contract basis which will enable T.O. to take up the work on priority basis.

Please treat the matter as "**MOST URGENT.**"

Yours faithfully,

(Ashok Angadi)
Chief Engineer Ele.,
(C, O&M), BMAZ, BESCOM.

Copy to:

1. Executive Engineer (Ele.), (C,O&M, Rajajinagar Divisions, BMAZ, BESCOM, Bangalore to ensure and to prepare estimates under RC.
2. Asst. Executive Engineer (Ele.), (C,O&M), N-3 sub division, BESCOM, Bangalore to ensure and to prepare estimates under RC
3. AEE-4/MF/F-165.

BANGALORE ELECTRICITY SUPPLY COMPANY

ESTIMATE No. AE-9/ BVJ- 122 / dt-23.12.2011

Estimate For Shifting of DTC's, DPS's, HT & LT Lines F-3, F-16, F-17, F-23, F-31 NRS at WCR as per Request of Chief Engineer B.B.M.P For Carrying the Fly over and Under pass Work in O&M-9 N3 Sub-division. Under Self Execution Works.

Temparary Shifting Materials Required F-3. PART-A

Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	9 mts RCC Poles	200105	Nos	26	4755	123630
2	Spun Pole 11Mts Long	200120	Nos	5	13250	66250
3	Coyote Wire	284116	mts	400	82.791	33116.4
4	Special 3Pin xarm	279013	Nos	40	580	23200
5	Brace for Special 3Pin Xarm	279083	Nps	40	174	6960
6	Rabbit Wire	284108	mts	200	23.9	4780
7	45 KN Disc Insulator	283040	Nos	15	313.5	4702.5
8	11 mts Spun Pole Structure Kit	279128	SET	5	20800	104000
9	2 Pole TC Set	279120	SET	7	8087	56609
10	Earthing Materials	281674 600095 607054	Nos	31	1010	31310
11	95Sqmm Copper Terminals	288531	Nos	200	150	30000
12	240Sqmm Copper Terminals	288536	Nos	70	546	38220
13	185 Sqmm Copper Terminals	288534	Nos	15	225	3375
14	11 KV Pin Insulator With G.I Pins	283005, 283055	Nos	50	71	3550
15	P.G Clamps (coyote-coyote)	285515	Nos	30	228	6840
16	P.G Clamps (coyote-Rabbit)	285518	Nos	36	251	9036
17	G.I Wire 8 S.W.G	281008	KG	100	57.35	5735
18	Guy Wire 7/10	281110	KG	120	57.9	6355
19	Bolts & Nuts	733618	KG	100	55.71	5571

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11	Fixing of 3 pole Structure kit (4439x7)			7	4439	31073
12	Releasing & Refixing HG Fuse unit (1.9x168x10)			10	168	3192
13	Releasing & Refixing DTC Metering Box (1.9x812x7)			7	812	10800
14	Releasing & Refixing of H Frame for GOS (1.9x136x34)			34	136	8/86
15	Releasing & Refixing of Distribution Box (1.9x322x7)			7	322	4283
16	Cable trench Exvation (600x0.7x102)			102	32	4284
17	Laying of Cable in trench (1x26.751x700)				26.751	18725
18	Refilling and Consolidation (550x1x32x0.7)				550	12320
19	Making of Straight through Jointing kit (1260x9)			9	260	11340
20	Making of Pot head outdoor (1120x25)			25	1120	28000
21	Covering the Cable with tiles (1x1843x0.7)				1843	1290
22	Spreading Sand forming with round the cable (6475x0.7)				6475	4533
23	Laying of GI pipe (100x32)				32	3200
24	Laying of Route Indicating Stone (20x0.7x48)				40	672
25	Releasing Double pole set (2303x0.9x2)			2	2303	4606
26	Laying of 3x240Sqmm XLPE U.G Cable Involving Excavation of soil(26.751x785)					21,000
27	Laying of 3x400 Sqmm XLPE U.G Cable Involving Excavation of soil(28.158*670)					18866
28	Misc Labour					1015
Total						246050

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20	Alkathine tube	821900	COIL	12	480	5760
21	Concreting Materials 11 mts Spun Pole			5	9477	47385
22	11 KV 3X95 Sqmm XLPE U.G Cable	287340	mts	20	596	11920
23	11 KV 3X95 Sqmm Straight Through Jointing Kit XLPE		Nos	2	4115	8230
24	11 KV 3X95 Sqmm Pot Head Out Door XLPE		Nos	2	2212	4424
25	Misc Maerials					1,011
	TOTAL					641,970
	LABOUR CHARGES					
Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	Releasing 9 mts RCC Poles (483x0.9x20)			20	483	8,694
2	Releasing 8 mts PCC Poles (483x0.9x10)			10	483	4,347
3	Releasing 8 mts RCC Poles (483x0.9x6)			6	483	2,608
4	Releasing 11 mts Spun Poles (861x0.9x3)			3	861	2,325
5	Releasing Horizontal Xarm (71.4x0.9x36)			36	71.4	2313
6	Releasing & Refixing 4Pin Xarm (71.4x1.9x23)			23	71.4	3120
7	Releasing & Refixing 2Pin Xarm (71.4x1.9x9)			9	71.4	1221
8	Releasing Coyote Conductor (3.225x0.9x1710)			1710	3.225	4963
9	Releasing Rabbit Conductor (1.846x0.9x433)			433	1.846	719
10	Errection of 9 mts RCC Poles(483x26)			26	483	12558
11	Errection of 11 mts Spun Poles (861x5)			5	861	4305
12	Re stringing of Coyote Wire (3.225x2050)			2050	3.225	6611
13	Restringing of Rabbit Wire (1.846x400)			400	1.846	738

14	Releasing & Re Errection of 250KVA DTC (966x1.9x5)			5	966	9177
15	Releasing Spun Pole Structure Kit (1439x3x0.9)			3	1439	3,885
16	Fixing of Spun Pole Structure Kit (1439x5)			5	1439	7195
17	Releasing & Refixing Double Pole T.C Structure Kit (2303x5)			5	2303	11515
18	Providing of Earthing (406x31)			31	406	12,586
19	Releasing & Refixing of 200Amps GOS (1.9x311x8)			8	311	4,727
20	Releasing & Refixing of 400Amps GOS (1.9x311x3)			3	311	1265
21	Releasing & Refixing of HG Fuse Unit (1.9x168x7)			7	168	2,234
22	Releasing & Refixing of H-Frame for GOS (1.9x136x11)			11	136	2842
23	Releasing & Refixing of DTC Metering Box (1.9x812x7)			7	812	10800
24	Releasing & Refixing of Lighting Arrester(1.9x50.4x8)			8	50.4	766
25	Releasing & Refixing of Distribution Box (1.9x322x7)			7	322	4283
	Fixing of Special 3Pin xarm (71.4x31)			31	71.4	2213
27	Fixing Of Brace for Special 3Pin xarm (71.4x31)			31	71.4	2213
28	Digging of pit for 9mts RCC Pole (267x26)			26	267	6942
29	Digging of pit for 11mts Spun Pole (805x3)			3	805	2415
30	Laying of 11 KV 3x95 sqmm XLPE (25.343x20)					507
31	Making of Straight Through 3x95 Sqmm Jointing Kit			2	1260	2520
32	Making of Pot Head			2	1120	2240
33	Misc Labour					1013
		TOTAL				145,860

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Permanent Shifting Materials required F-3 NRS, PART-B						
Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	11mts spun pole	200120	Nos	3	13250	39,750
2	spun pole structure kit	279128	Nos	3	20800	62,400
3	400 Amps D/B GOS	304224	Nos	25	14256	356,400
4	45 KN DISC Insulator	283040	Nos	42	313.5	13,167
5	3x400sq mm 11 KV UG CableXLPE	287350	Mts	670	1318.6	883,462
6	3x400sq mm 11KV Straight through Jointing kit	288329	Kit	4	5672	22,688
7	3x240sq mm 11KV UG CableXLPE	287345	Mts	785	862.4	676,984
8	3x240sq mm 11KV Straight through Jointing kit XLPE	288324	Nos	5	4695	23,475
9	3x240sq mm 11KV Outdoor pot Head XLPE	288304	Nos	20	2742	54,840
10	3x240sq mm-11KV Outdoor termination kit	288305	Mts	5	2763	13,815
11	3Pole Structure kit for XLPE Cable		Nos	7	12900	90,300
12	GI pipe 150mm dig for dram, crossing cable, raising Etc	768058	Nos	100	948	94,800
13	Earthing Materials	281674, 600095, 607054	Nos	30	1010	30,300
14	95sq mm Copper terminals	288,531	Nos	220	150	33,000
15	240sqmm Copper terminals	288536	Nos	96	546	52,416
16	185sqmm Copper terminals	288534	Nos	99	225	22,275
17	PG Clamps Coyote to Coyote	285515	Nos	75	228	17,100
18	PG Clamps Rabbit to 240sqmm Insulated lead wire	285565	Nos	50	282	14,100
19	Concreting materials for 11 mts spunpole		Nos	3	9457	28,371
20	PG Clamps Rabbit&Rabbit	285508	Nos	50	73	3,650
21	GI wire 8SWG	281008	Kgs	100	57.35	5,735

22	Guy Wire 7/10	281110	Kgs	130	57.9	7,527
23	Bolts&Nuts	733618	Kgs	150	55.71	8,357
24	Alka thine tube	821900	COIL	12	480	5,760
25	3x95 sqmm 11 KV UG Cable XLPE		mts	0.03	476713	14,301
26	3x95 sqmm 11 KV jointing kit straight Through XLPE	288322	Nos	2	4115	8,230
27	3x95 sqmm Pot head out Door XLPE	288302	Nos	2	2212	4,424
28	Cable Covering tails	801035	mts	400x7	8	22,400
29	River Sand	800650	cmt	42	1040	43,680
30	Rout & jointing Indicating Stone	802460	Nos	15	115	1,725
31	Misc Maerials					5,009
		TOTAL				2,660,441

Labour Charges for Permanent Shifting F-3 NRS

Sl.no	Particulars	Code	Unit	Qty	Rate	Labour Cost
2	Releasing Coyote Wire (0.9x3.225x1916)			1916	3.225	5561
3	Erection of Rabbit Wire (1.846x600)			600	1.846	1,108
4	Releasing & ReErection of 250KVA DTC (1.9x966x5)			5	966	9,177
	Releasing & ReErection of 250KVA DTC (1.9x644x1)			1	644	1,224
5	Erection of spun pole 11mts (861x3)			3	861	2,583
6	Digging of pit for 11mts spun pole (805x3)			3	805	2415
7	Providing of Earthing (406x30)			30	406	12180
8	Fixing of 11mts spun pole Structure kit (1439x3)			3	1439	4,317
9	Releasing & Refixing 200Amps-GOS (311x1.9x8)			8	311	4,727
10	Fixing of 400Amps D/B-GOS (311x1.9x25)			25	311	14773

Temparary Shifting Materials Required F-23 PART-A

Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	9 mts RCC Poles	200105	Nos	23	4755	109365
2	Spun Pole 11Mts Long	200120	Nos	5	13250	66250
3	Special 3Pin xarm	279013	Nos	24	580	13920
4	Brace for Special 3Pin Xarm	279083	Nos	14	174	2436
5	Rabbit Wire	284108	Mts	300	23.9	7170
6	45 KN Disc Insulator	283040	Nos	39	313.5	12226.5
7	11 mts Spun Pole Structure Kit	279128	Nos	5	20800	104000
8	2 Pole TC Set	279120	Set	3	12900	38700
9	Earthing Materials	281674 600095 607054	Nos	20	1010	20200
10	95 Sqmm Copper Terminals	288531	Nos	70	150	10500
11	240 Sqmm Copper Terminals	288536	Nos	50	546	27300
12	185 Sqmm Copper Terminals	288534	Nos	15	225	3375
13	11 KV Pin Insulator With G.I Pins	283005, 283055	Nos	60	71	4260
14	P.G Clamps (coyote-coyote)	285515	Nos	56	228	12768
15	P.G Clamps (coyote-Rabbit)	285518	Nos	21	251	5271
16	G.I Wire 8 S.W.G	281008	Kgs	70	57.35	4014.5
17	Guy Wire 7/10	281110	Kgs	100	57.9	5296
18	Bolts & Nuts	733618	Kgs	125	55.71	6964
19	Alkathine tube	821900	Coil	8	480	3840
20	Concreting Materials 11 mts Spun Pole		Nos	5	9477	47385
21	11 Kv 3x400 Sqmm U.G Cable	287350	Mts	0.020	959000	19180
22	Straight Through Jointing Kit 3x400Sqmm XLPE	288305	Nos	2	5672	11344
23	Pot Head 3x400 Sqmm XLPE	288305	Nos	1	2763	2763
24	400 Sqmm Double Break GOS	304224	Nos	1	14256	14256
25	G.I Pipe 100 mm Dia		Mts	10	948	9480
26	Route and Joint Indicating Stone		Nos	3	115	345
27	Misc Materials					1521
		Total				564130

3	400 Amps D/B GOS	304224	Nos	14	14256	199,584
4	45 KN DISC Insulator	283040	Nos	36	323.5	11,646
5	3x400sq mm 11 KV UG CableXLPE	287350	Mts	656	1648	1,081,088
6	3x400sq mm 11KV Straight through Jointing kit	288329	Kit	4	5672	22,688
7	Rabbit Wire	284108	Mts	400	23.9	9,560
8	3x240sq mm-11KV Outdoor termination kit	288305	Nos	14	2763	38,682
9	3Pole Structure kit for XLPE Cable		Nos	4	19633	78,532
10	GI pipe 150mm dig for dram,crossing cable,raising Etc	768058	Mts	100	948	94,800
11	Earthing Materials	281674, 600095, 607054	Nos	20	1010	20,200
12	95sq mm Copper terminals	288,531	Nos	66	150	9,900
13	240sqmm Copper terminals	288536	Nos	50	546	27,300
14	185sqmm Copper terminals	288534	Nos	80	225	18,000
15	PG Clamps Coyote to Coyote	285515	Nos	20	228	4,560
16	PG Clamps Rabbit to 240sqmm Insulator	285565	Nos	50	282	14,100
17	PG Clamps (Rabbit & Rabbit)	285508	Nos	20	73	1,460
18	GI wire 8SWG	281008	Kgs	80	57.35	4,588
19	Guy Wire 7/10	281110	Kgs	100	57.9	5,790
20	Bolts&Nuts	733618	Kgs	100	55.71	5,571
21	3x95 Sqmm XLPE U.G Cable		Mts	0.015	596.2	9
22	3x95 sqmm jointing kit XLPE straight through	288322	Nos	1	4115	4,115
23	3x95 Sqmm pot Head XLPE out Door	288302	Nos	1	2212	2,212
24	Alka thine tube	821900	coil	8	480	3,840
25	Cable Covering tails	801035		480	8	3,840
26	River Sand (1040 cmt x 0.550x60)	800650	cmt	550	60	34320

27	Rout & jointing Indicating Stone(0.550Mtsx20x115)	802460				1265
28	Concreting Materials 11 mts Spun Pole		Nos	3	9477	28,431
29	Misc Maerials					1,009
		Total				1,829,240

Labour for Permanent Shifting F-23 NRS

Sl.no	Particulars	Code	Unit	Qty	Rate	Labour Cost
1	Releasing for 2pinxarm (0.9x71.4x20)			20	71.4	1,285
2	Releasing Coyote Wire (0.9x3.225x1063)			1063	3.225	3085
3	Erection of Rabbit Wire (1.846x700)			700	1.846	1,292
4	Releasing & ReErection of 250KVA DTC (1.9x966x4)			4	966	7,342
	Releasing & ReErection of 100KVA DTC (1.9x581x1)			1	581	1,104
5	Erection of spun pole 11mts (861x3)			3	861	2,583
6	Digging of pit for 11mts spun pole (805x3)			3	805	2415
7	Providing of Earthing (406x20)			20	406	8120
8	Fixing of 11mts spun pole Structure kit (1439x3)			3	1439	4,317
9	Releasing & Refixing 200Amps-GOS (311x1.9x6)			6	311	3,545
10	Fixing of 400Amps D/B-GOS (311x14)			14	311	4354
11	Fixing of 3 pole Structure kit (4439x4)			4	4439	17756
12	Releasing & Refixing HG Fuse unit (1.9x168x6)			6	168	1915
13	Releasing & Refixing DTC Metering Box (1.9x812x5)			5	812	7714
14	Releasing & Refixing of H Frame for GOS (1.9x136x9)			9	136	2326
15	Releasing & Refixing of Distribution Box (1.9x322x5)			5	322	3059

16	Cable trench Exvation (600x102x0.550 mts)			102	32	33660
17	Laying of Cable in trench (1x28158x0.058 mts)					1633
18	Refilling and Consolidation (550x1x32x0.550 mts)				550	9680
19	Making of Straight through Jointing kit (1260x4)			4	1260	5040
20	Making of Pot head outdoor (1120x14)			14	1120	15680
21	Covering the Cable with tiles (1x1843x0.550)			1843	1843	1014
22	Spreading Sand forming with round the cable (6475x0.550)				6475	3561
23	Laying of GI pipe (100x100)			100	100	10000
24	Laying of Route Indicating Stone (20x48x0.550)			20	40	528
25	Releasing Double pole set (2303x0.9x5)			5	2303	10364
26	Misc Labour					1,048
		Total				164,420

Temparary Shifting Materials Required F-17. PART-A

Sl. no	Particulars	Code	Unit	Qty	Rate	Amount
1	9mts RCC Poles	200105	No	15	4755	71325
2	Spun pole 11 mts. Long	209120	No	4	13250	53,000
3	Coyote Conductor	284116	Mts.	400	82.791	33,116
5	Brace for 11 KV Special 3Pin Xarm	2790832	Nos	25	174	4350
6	RABBIT Conductor	284108	Mts.	300	23.9	7170
7	45 KN disc Insulator	283040	Nos	12	313.5	3762
8	11mts Spun Pole Structure Kit	279128	Nos	4	20800	83,200
9	Double Pole TC Set	279120	Nos	1	12,900	12900
10	Earthing materials	281674-490 600095-300 607054	Nos.	10	1010	10100
11	95 sqmm Copper Trrminals	288531	Nos	50	150	7500
12	240Sqmm Copper Terminals	288536	Nos	16	546	8,736
13	185sqmm Copper Terminals	288534	Nos	39	225	8775
14	11 KV Pin insulators	283,005	Nos	30	71	2130
15	P.G Clamp (coyote-coyote)	285515	Nos	25	251	6275
16	P.G Clamp (coyote-rabbit)	285518	Nos	15	251	3765
17	G.I Wire 8 SWG		Kgs.	25	57.55	1438.75
18	Bolt & Nuts	733612	Kgs.	50	55.79	2789.5
19	Guy wire 7/10 swg		Kgs.	50	57.96	2898
20	AIKATHENE TUBE	821900	Coils	4	480	1920
21	Concreting materials for 11'mts spunpole					
	a) Base concreting 1:4:8, 1000x1000x2500m		Nos	4	437	1748
	b) pole concreting 1:2:4 1000x1000x2500mm		Nos	4	8500	34000
	c) Copying 1:2:4 as per actuals		No.	4	520	2080
22	Misc. materials		L/S			10,011
				Total		372,990

Releasing & Refixing Labour F-17						
Sl. no	Particulars	Code	Unit	Qty	Rate	Labour Cost
1	Releasing 9 mts.RCC Pole.(13x0.9x483).		No	13	483	5,651
2	Releasing 8Mts PCC pole (8x0.9x483)		No	8	483	3,478
3	Releasing 8 mts.RCC Pole (5x0.9x483).		No	5	483	2,174
4	Releasing 11 mts Spun Pole (2x0.9x861)		No	2	861	1,550
5	Releasing HT top support (13x0.9x49).		No.	13	49	573
6	Releasing Horizontal xarmy.(13x0.9x71.4).		No.	13	71.4	835
7	Releasing Refixing of 4 pin x arms(71.4x0.9x15)		Nos.	15	71.4	964
8	Releasing Refixing of 2 pin x arms(71.4x0.9x13)		Nos.	13	71.4	835
9	Releasing Coyet wire .(3.225x791x0.9)		Mts.	791	3.225	2296
10	Releasing Rabbit wire.(1.846x500x0.9)		Mts.	500	1.846	831
11	Errection of 9mts RCC Pole(15x483)		Nos	15	483	7245
12	Errection of 11mts Spun Pole		Nos	4	861	3444
13	Restranging of Coyote Wire (1137x3.225)		Mts.	1137	3.225	3667
14	Restranging of Rabbit Wire (500x1.846)		Mts.	500	1.846	923
15	Releasing ReErrection of 250 KVA DTC (2x966x1.9)		Nos.	2	966	3,671
16	Releasing Spun pole structure kit (1x0.9x1439)		Nos.	1	1439	1295
17	Fixing of Spun pole Structure kit (4x1439)		Nos.	4	1439	5756
18	Releasing & Refixing of Double pole TC Set (2304x1.9x2)		Set	2	2304	8,755
19	Refixing double pole TC set (1x2304)		Set	1	2304	2,304
20	Providing of Earthing (10x406)		Nos	10	406	2900

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21	Releasing & Refixing of 200.Amps GOS (311x1.9x2)		Set	2	311	1,182
22	Releasing & Refixing of HG Fuse unit(2x168x1.9)		Set	2	168	638
23	Releasing & Refixing of DTC Metering Box (1.9x812x2)		Nos	2	812	3086
24	Releasing & Refixing Distribution Box(322x2x1.9)		Nos.	2	322	1,224
25	Releasing & Refixing Lighting arrester (1.9x42x6)		Nos.	6	42	479
26	Fixing of Special 3pin Xarms		Nos.	25	71.4	1785
27	Fixing of Brace to Special 3pin Xarms		Nos.	25	71.4	1785
28	Releasing & Refixing of H Frame for GOS (1.9x136x2)		Nos.	2	136	517
29	Digging of pit for 9mts RCC pole		Nos.	15	267	4005
30	Digging of pit for spun pole		Nos.	4	805	3220
31	Misc. labour		L/S			3,002
			Total			80,070

Permanent Shifting F-17-NRS, PART-B

Sl. no	Particulars	Code	Unit	Qty	Rate	Amount
1	Spun pole 11 mts. Long	209120	No	2	13250	26,500
2	11mts Spun Pole Structure Kit	279128	Nos	2	20800	41,600
3	400 Amps D/B GOS	304224	Nos	11	14256	156,816
4	45 KN disc Insulator	283040	Nos	28	313.5	8778
5	3x400sqmm 11KV UG Cable XLPE	287350	Mts.	450	1648.35	741757.5
6	3x400sqmm 11KV Straight through JointingKit	288329	Nos	3	5672	17016
7	3x400sqmm 11KV Out Door Pot head XLPE	288336	Nos	5	2763	13,815
8	3x240 sqmm 11 KV out door pot head XLPE	288302	Nos	8	2212	17,696
9	3x240sqmm 11KV UG Cable XLPE	287345	Mts.	460	1078	495,880
10	3x240sqmm 11KV Straight ThroughJointing Kit XLPE	288324	Nos	4	4695	18,780
11	G.I Wire 8 SWG		Kgs.	60	57.35	3,441

12	7/10 Guy Wire		Kgs.	100	57.9	5,790
13	95 sqmm Copper Trminals	288531	Nos	50	150	7500
14	240Sqmm Copper Terminals	288536	Nos	16	546	8,736
15	185sqmm Copper Terminals	288534	Nos	39	225	8775
16	11 KV Pin insulators	283,005	Nos	30	71	2130
17	P.G Clamp (coyote-coyote)	285515	Nos	39	228	8892
18	P.G Clamp (coyote-rabbit)	285518	Nos	17	251	3012
19	Cable Covering Tails (250x250x40)	801035	Nos	1000	8	8000
20	Sand (68x0.8=48)	800650		48	1040	49920
21	Rout & Jointing Indicating stone	802460	Nos	115	10	1150
22	G.I Pipe 150mm dia for drain, Crossing Cable raising etc	768058		104	948	98592
23	3 Pole Structure kit	279015	set	2	5110	10220
24	AIKATHENE TUBE	821900	Coils	3	480	1440
25	Concreting materials for 11 mts spunpole					
	a) Base concreting 1:4:8,1000x1000x2500m		Nos	2	437	874
	b) pole concreting 1:2:4 1000x1000x2500mm		Nos	2	8500	17000
	c) Copying 1:2:4 as per actuals		Nos.	2	520	1040
26	Misc. materials			L/S		10,009
				Total		1,785,160
Permanent Shifting F-17 NRS Labour Charges						
Sl. no	Particulars	Code	Unit	Qty	Rate	Labour Cost
1	Releasing for 2Pin Xarm (0.9x71.4x19)		No	19	71.4	1,221
2	Releasing Coyet wire (3.2256x1137x0.9)		Mts.	1137	3.2256	3301
3	Releasing ReErrection of 250 KVA DTC (2x966x1.9)		Nos.	2	966	3,671
4	Releasing & Refixing of Double pole TC Set (1645x1.9x2)		Set	2	2303	8,751
5	Providing of Earthing		Nos	12	406	4,872
6	Errection of 11mts Spun Pole		Nos	2	861	1722
7	Digging of Pit Spun Pole		Nos	2	805	1610

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8	Releasing & Refixing of 200 Amps GOS (311x1.9x2)	Set	2	311	1,182
9	Fixing of 11mts Spun Pole Structure Kit	Nos	2	1439	2,878
10	Releasing & Refixing of HG Fuse unit(2x168x1.9)	Set	2	168	639
11	Releasing & Refixing of DTC Metering Box (1.9x812x2)	Nos	2	812	3086
12	Releasing & Refixing Lighting arrester(1.9x51x6)	Nos	6	51	582
13	Releasing & Refixing of H Frame for GOS (1.9x136x6)	Nos.	6	136	1551
14	Releasing & Refixing of L.T.D Box(1.9x322x2)	Nos	2	322	1224
15	Cable trench Excavation (600x0.8)		480	143	68640
16	Laying of Cable in trench (0.8x26751)				21401
17	Refilling and Consolidation(550x0.8x32)				14080
18	Making of Termination kit 3x400 Sqmm XLPE Out Door	Nos	5	1120	5600
19	Making of straight through jointing kit 3x400Sqmm XLPE		3	1260	3780
20	Making of straight through jointing kit 3x240 Sqmm XLPE		4	1260	5040
21	Making of termination kit 3x240 Sqmm XLPE		8	1120	8960
22	Covering the cable with tiles(0.8x1843)		0.8	1843	1474
23	Spreading sand forming with sand round the cable(6475x0.8)		0.8	6475	5180
24	Laying of G.I pipe		104	8	832
25	Laying of Route & Jointing Indication stone (10x48)		10	67	670
26	Refixing double pole TC set (1x1645)	Set	2	2303	4,606
27	Providing of Earthing (10x290)	Nos	10	406	4060
28	Misc. Labour				1004
Total					181,617

Permanent Shifting of F-31 Materials Required

PART-A

Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	11 KV Class 3x400 Sqmm XLPE UG Cable	287350	mts	0.500	1318625	659,313
2	Straight Through Jointing Kit H.S Type Suitable for 400Sqmm U.G Cable	288329	Nos	3	5672	17,016
3	G.I Pipe 150mm Dia drain Crossing Cable raising & drain Crossing	768058	mts	10	948	9480
4	Cable Covering tiles 250x250x40mm	801035	Nos	1200	8	9600
5	Sand River	800630	cmt	18	1040	18720
6	Route & jointing Indicating Stone		Nos	10	115	1,150
7	Misc Materials					1121
					Total	716,400

Labour Charges of F-31 NRS

Sl.no	Particulars	Code	Unit	Qty	Rate	Labour Cost
1	Cable Trench Excavation (1000x0.6x1=600)		Cmts	0.5	143	42,900
2	Laying of Cable in trench		Kms	0.5	28158	14079
3	Refilling and Consolidation		Cmts	0.165	45	7,425
4	Making of Straight through Jointing kit		Nos	3	1260	3,780
5	Making of Cable Termination		Nos	2	1120	2,240
7	Spreading Sand forming with sand round the cable		Kms	0.3	6475	1,943
9	Laying of Route & Jointing Indicating Stone		mts	10	48	480
19	Laying of RCC Hume Pipe		Nos	10	28	280
23	Misc Labour					2003
					Total	75,130

Sl.no	Feeder		Materials charges RS	Labour charges RS	
1	F-3	Temporary Shifting	641970	145860	
		Permanent Shifting	2660441	246050	
		Total	3302411	391910	
2	F-31	Permanent Shifting	716400	75130	
		Total	716400	75130	
3	F-16	Permanent Shifting	1273970	143610	
		Total	1273970	143610	
4	F-17	Temporary Shifting	387490	80070	
		Permanent Shifting	1785160	181617	
		Total	2172650	261687	
5	F-23	Temporary Shifting	564130	249060	
		Permanent Shifting	1829240	164420	
		Total	2393370	413480	

		Materials charges RS	Labour Charges RS		
	F-3	3302411	391910		
	F-31	716400	75130		
	F-16	1273970	143610		
	F-17	2172650	261687		
	F-23	2393370	413480		
	Total	9858801	1285817		

Credit Materials

Sl.No	Feeder	coyote	GOS	D.P Set	Rail Pole	Horizontal Xarm	Spun pole D.P
1	F-3	1700Mts	Nil	1 No	2 No	20 Nos	1 No
2	F-16	2025mts	Nil	1 No	2 Nos	Nil	Nil
3	F-17	900Mts	Nil	Nil	Nil	13Nos	1 NO
4	F-23	800 Mts	1 no	.	Nil	15 Nos	Nil
5	F-31	Nil	Nil	Nil	Nil	Nil	Nil
		5425	1	2	4	48	2

Released Good Not used 30 Nos 9 mts RCC Pole to be Returned to Stores.

Materials		unit	Qty	Rate	Amount
Coyote onductor	5425mts	Kgs	2712.5	64	173600
GOS	1 no	Kgs	20	16	320
D.P SET	2 nos	Kgs	40	18	720
Rail Pole	4 nos	Kgs	400	24	9600
Horizontal xarm	48 nos	Kgs	96	18	1728
Spun Pole D.P	2 nos	Kgs	60	18	1080
		Total			187048

BANGALORE ELECTRICITY SUPPLY COMPANY

Self execution work

Sl.No	Particulars	Amount (in Rs.) :
1	Materials Cost	9858801
2	Labour Charges	1285817
3	Locality Allowance @ 15% on Labour charges (applicable for areas mentioned in page no.-----)	192873
4	*Contingencies @ 2% on Total material & labour	222892
5	Employees cost @ 10% on total labour Charges (2+3)	119522
6	Total labour charges	1821104
7	Statutory charges such as Road cutting charges payable to BBMP or local authorities as per actuals.	0
8	Government electrical inspectorate charges as per actuals.	0
9	Restoration Charges	20000
10	Total Cost of Estimate in Rs.	11699905

1) All the materials required for execution of works have to be arranged by the agencies.

10% Supervision charges Rs. 11,56,050=00.

2) No material shall be supplied by ESCOMs.

UG Cable testing charges Rs 20,000=00.

3) The materials shall conform to ESCOMs specifications and shall be got inspected before execution of work. The material shall be procured by the agencies from the approved vendors.

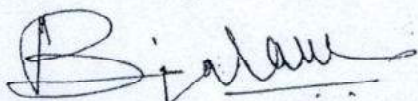
Certificate:- Certified that I have personally inspected the spot and prepared this estimate by using current rates in force and safe way of executing the work.


REPORT:- Estimate amounting of Rs -11699905 /- is Prepared for Shifting of Temporary & permanent Electric Utilities Like DTC, DP, HT & LT lines in feeder F-3,F-16,F-17,F-23,F-31 N R S at WCR as per request of chief engineer BBMP for carrying the Fly Over and Under Pass work. In O & M9 N3 Sub division, Under self execution works.

Labour for Tempary Shifting						
I.no	Particulars	Code	Unit	Qty	Rate	Amount
1	Releasing 9 mts RCC Poles (483x0.9x30)		Nos	30	483	13,041
2	Releasing 8 mts PCC Poles (483x0.9x8)		Nos	8	483	3,478
3	Releasing 8 mts RCC Poles (483x0.9x6)		Nos	6	483	2,608
4	Releasing 11 mts Spun Poles (861x0.9x1)		Nos	1	861	775
5	Releasing Horizontal Xarm (71.4x0.9x29)		Nos	29	71.4	1864
6	Releasing & Refixing 4Pin Xarm (71.4x1.9x13)		Nos	13	71.4	835
7	Releasing & Refixing 2Pin Xarm (71.4x1.9x5)		Nos	5	71.4	678
8	Releasing Coyote Conductor (3.225x0.9x1471)		Mts	1471	3.225	4309
9	Releasing Rabbit Conductor (1.846x0.9x700)		Mts	700	1.846	1163
10	Errection of 9 mts RCC Poles(483x23)		Nos	23	483	11109
11	Errection of 11 mts Spun Poles (861x5)		Nos	5	861	2583
12	Restrining of Coyote Wire (3.225x1063)		Mts	1063	3.225	3429
13	Restrining of Rabbit Wire (1.846x600)		Mts	600	1.846	1108
14	Releasing & Re Errection of 250KVA DTC (966x1.9x4)		Nos	4	966	7342
15	Releasing Spun Pole Structure Kit (1439x1)		Nos	1	1439	1,439
16	Fixing of Spun Pole Structure Kit (1439x5)		Nos	5	1439	7195
17	Releasing & Refixing Double Pole T.C Structure Kit (2303x5)		Nos	5	2303	11515
18	Providing of Earthing (406x20)		Nos	20	406	8,120
19	Releasing & Refixing of 200Amps GOS (1.9x311x6)		Nos	6	311	3,545

B.B.M.P has taken Up the Fly over and Under Pass works at WCR and Requesting for Shifting of electrical utilities Like D.T.C's, D.P's, HT & LT Lines at WCR But Proposing places are not available and consumer Will not allowed for shifting of DTC & DP's and HT & LT Lines. Hence it is Proposed to Shift the DTC & DP's any Convenient places temporarily HT Line Will Proposed for shifting on Existing LT lines by Providing HT Brackets and some 8 mts Pole to be Replaced by 9mts RCC Poles, after Compleating the Fly over and under Pass Work once again the DTC and DP. HT line Will be Shifted Permanently to same Existing Places. By Providing HT UG Cable System, (Loop in and Loop out). The LT Line will be Shifted to existing HT Bracket (Place). Released some Coyote and Rabbit Wires and other Materials Will be Used for Jumps and other Purposes. F-16 Over Head Lines is carrying 2 Nos of Feeder F-14 and F-16. F-14 pertain's N1 Sub Division. Hence materials like Horizontal Xarm and RCC Pole to be Released by N1 Sub Division. and Power Supply Interruption Will be Occured While Carrying this Shifting Work These are Feeding From F-16, F-3, F-17, F-23, F-31 N R S Station.

All the Necessary Materials & labour are Menctioned in This Estimate Some Released Materials are Shown as Credit. Hence this Estimate may Kindly be sanctioned at Earliest. Under Self Execution Work.


Asst. Engineer, Elec., O&M-9 Unit.
N3 Sub-Division (Elec)
BESCOM, O & M S
Sub-Dyn., BANGALORE


Asst. Executive Engineer, Elec.,
N-3 Sub-Dyn.
ASSISTANT ENGINEER (Elec)
BESCOM, O & M S
Sub-Dyn., BANGALORE

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Permanent Shifting of F-16 Materials Required

PART-A

Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	11 KV Class 3x400 Sqmm XLPE UG Cable	287350	mts	0.800	1318625	1,054,900
2	Straight Through Jointing Kit H.S Type Suitable for 400Sqmm U.G Cable	288329	Nos	4	5672	22,688
3	Cable Termination Kit Out Door 3x400 Sqmm XLPE	288305	Kit	2	2763	5,526
4	G.I Pipe 150mm Dia drain Crossing Cable raising & drain Crossing	768058	mts	30	948	28440
5	Cable Covering tiles 250x250x40mm	801035	Nos	3200	8	25600
6	Sand River	800630	cmt	48	1040	49920
7	Rout & jointing Indicating Stone		Nos	16	115	1,840
8	11 mts Spun Pole	200120	Nos	1	13500	13,500
9	Spun Pole Structure Kit	279128	Set	1	20800	20,800
10	Earthing Materials	281674, 600095, 607054	Nos	2	1010	2,020
11	D.P Set		Set	1	11320	11,320
12	H-Frame for 400Amps GOS		Set	1	2950	2950
13	400Amps Double Break GOS	304224	Nos	1	14256	14256
14	185 sqmm Copper terminals	288534	Nos	18	225	4050
15	PG Clamps Coyote to Coyote	285518	Nos	9	251	2259
16	Alkathine tube	821900	Coil	1	480	480
17	G.i Wire 8 S.W.G	281008	Kgs	25	57.35	1433.75
18	Bolt & Nuts	733618	Kgs	25	55.71	1393
19	Concreting Materials for Spun Pole			1	9477	9477
20	Misc Materials					1117
			Total			1,273,970
	Labour Charges of F-16 NRS					

20	Releasing & Refixing of 400Amps GOS (1.9x311x3)		Nos	3	311	1773
21	Releasing & Refixing of HG Fuse Unit (1.9x168x6)		Nos	6	168	1,915
22	Releasing & Refixing of H-Frame for GOS (1.9x136x9)		Nos	9	136	2326
23	Releasing & Refixing of DTC Metering Box (1.9x812x5)		Nos	5	812	7714
24	Releasing & Refixing of Lighting Arrester(1.9x50.4x6)		Nos	6	50.4	575
25	Releasing & Refixing of Distribution Box (1.9x322x5)		Nos	5	322	3059
26	Fixing of Special 3Pin xarm (71.4x24)		Nos	24	71.4	1224
27	Fixing of Brace for Special 3Pin xarm (51x14)		Nos	14	51	1714
28	Digging of pit for 9mts RCC Pole (267x23)		Nos	23	267	6141
29	Digging of pit for 11mts Spun Pole (805x3)		Nos	5	805	4025
30	Laying of Cable in trench for Horizontal drilling With 6 inch boresize with HDPE Pipe (0.2x900=180)			180	700	126000
31	Making of straight Through Joints 3x400sqmmXLPE			3	1260	3780
32	Making of Cable Termination 3x400 Sqmm XLPE Out door			1	1120	1120
33	Laying of G.I pipe			10	32	320
34	Laying of Route and Indication Stone			4	48	192
35	Misc Labour					1,046
		Total				249,060
	Permanent Shifting Materials required F-23 NRS, PART-B					
Sl.no	Particulars	Code	Unit	Qty	Rate	Amount
1	11mts spun pole	200120	Nos	3	13250	39,750
2	spun pole structure kit	279128	Nos	3	20800	62,400

Sl.no	Particulars	Code	Unit	Qty	Rate	Labour Cost
1	Cable Trench Exvation (1000x0.6x1=600)x0.8		Cmts	480	143	68,640
2	Laying of Cable in trench		Kms	0.8	28158	22526
3	Refilling and Consolidation		Cmts	440	32	14,080
4	Making of Straight through Jointing kit		Nos	4	1260	5,040
5	Making of Cable Termination		Nos	2	1120	2,240
6	Covering the Cable with tiles		Kms	0.8	1843	1,474
7	Spreading Sand forming with sand.round the cable		Kms	0.8	6475	5,180
8	Laying of G.I Pipe		Nos	25	45	1,125
9	Laying of Route & Jointing Indicating Stone		mts	16	67	1,072
10	Releasing Coyote Wire(2250x30225x0.9)		Nos	2250	30225	6,531
11	Digging of Pit For 11 mts Spun Pole		Nos	1	805	805
12	Errection of Spun Pole		Nos	1	861	861
13	Fixing of Spun Pole Structure Kit		Nos	1	1439	1,439
14	Releasing Rail Pole		Nos	2	483	966
15	Releasing 9mts RCC Pole		Nos	3	483	1,449
16	Releasing 2Pole D.P Set (1645x0.9x1)		Set	1	2303	2,073
17	Releasing Horizontal Xarm		Nos	3	71.4	153
18	Providing of Earthing		Nos	2	406	580
19	Laying of RCC Hume Pipe		mts	50	39	1960
20	Releasing & Refixing of H-Frame for 400 Amps GOS (1.9x136x2)		Nos	2	136	517
21	Releasing & Refixing of 400 Amps GOS (1.9x311x1)		Nos	1	311	591
22	Fixing of D.P Set		Set	1	2303	2303
23	Misc Labour					2005
Total						143,610



BANGALORE WATER SUPPLY AND SEWERAGE BOARD

Cauvery Bhavan, K.G.Road, Bangalore-560009

No. BWSSB/EIC/ACE(M)-II/DCE(M)/TA-8/ 2870 /2012-13 Date: 24/7/2012

To:

The Engineer-in-Chief
Bruhat Bangalore Mahanagara Palike,
N.R.Square, Bangalore.

Sir,

Sub: Estimate for the work of providing and laying different dia MS & DI water supply pipeline along WOC road due to improvements to corridor along WOC road from Manjunathanagar main road junction to Basaveshwaranagar main road junction under deposit contribution work of BBMP coming under Rajajinagar S/stn. of West-2 Sub-div.

Ref: BWSSB/EE(W)/PB/2953 / 2012-13 Dated: 27.06.2012

Please find herein enclosed three sub estimates amounting to Rs.2,30,50,000/- (Rupees Two Crores Thirty lakhs Fifty Thousand only) for the above work. The estimate is based on the S.R of 2012-13 of BWSSB.

The report accompanying the estimate explains the necessity of work and provisions made therein. Necessary provisions for E.T.P. charges at 5 % are made in the estimate.

Further as per para-243 (ii) of KPWD Code Volume-I the Board does not intend to complete the work within the estimated cost and any excess cost incurred over and above the estimated cost has to be borne by the counter signing authority.

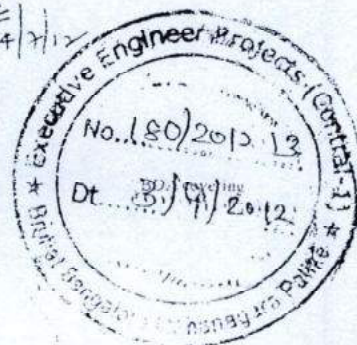
The estimate may kindly be retransmitted duly countersigned with funds for carrying out the work in the matter.

Yours faithfully

2 copies in duplicate.

[Signature]
Engineer-In-Chief
BWSSB

24/7/12



Approved by the
Executive Engineer (W) - 2 for information.

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ಪ್ರ. 1/202/12-13
25-07-2012

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29/07/2012
ಇಂಜಿನಿಯರ್ ಆರ್.ಎಸ್.ಎಸ್.ಎಸ್.
ಇಂಜಿನಿಯರ್ ಆರ್.ಎಸ್.ಎಸ್.ಎಸ್.

REPORT ACCOMPANYING THE ESTIMATE

for the work of providing and laying of 610 mm, 508mm, 457mm & 324mm dia MS & 150mm dia DI pipeline along W.O.C road under deposit contribution work of BBMP due to improvements of corridor along W.O.C road from Manjunathnagar main road junction to Basaveshwara main road junction coming under Rajajinagar service station of West- 2 sub division, BWSSB

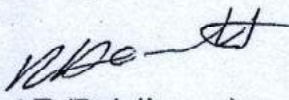
An estimate for the above work is framed amounting to Rs. 269.50 lakhs based on BWSSB SR 2012-13 for labour portion and BWSSB Store issue rates for material portion.

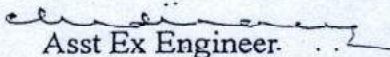
The water supply to Rajajinagar, Shivanhalli, Dasarahalli and Magadi road is being maintained by BWSSB using the existing 600 mm dia CI line running from Ist block Rajajinagar to Magadi road all along W.O.C road with several lateral branches at all encountered cross roads. Now, the BBMP authorities have informed that the work of improvements to corridor along W.O.C road from Manjunathnagar main road junction to Basaveshwaranagar main road junction has to be taken up and have requested BWSSB to estimate the amount required for the work of shifting / providing new water supply pipelines all along the W.O.C road at proposed under pass and flyovers. Accordingly, an estimate is prepared for providing and laying of different dia MS & DI water supply pipeline along W.O.C road at the proposed locations of flyover and underpass. The following are the provisions made in the estimate



- Cutting asphalt road
- Earthwork excavation in 0-2 mtrs depth in all soils, in DIR & in HR by chistelling.
- Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of SAW MS pipe (Fe-410 grade) conforming to IS 3589-2001.
- Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS Specials
- Supplying and fixing of CI valves
- Supplying Ductile iron pipes conforming to IS:8329-2000

- Providing and laying vibrated cement concrete of 1:2:4 proportion for RCC work with 20 mm for thrust blocks
- Providing TMT steel reinforcement for RCC work
- Refilling pipeline trenches

Under the said circumstances explained above, the estimate may be kindly approved under Deposit Contribution work of BBMP for the year 2012-13.


AE (Rajajinagar)

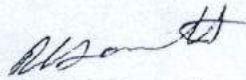

Asst Ex Engineer
West-2 Sub Division, BWSSB,
1st 'N' Block, Rajajinagar, Bangalore.

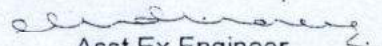

Executive Engineer
West Division, BWSSB,
RPC layout, Vijayanagar II stage,
Bangalore.



ESTIMATE FOR THE WORK OF PROVIDING AND LAYING OF 610 MM, 508MM, 457MM & 324MM DIA MS & 150MM DIA DI PIPELINE ALONG W.O.C ROAD UNDER DEPOSIT CONTRIBUTION WORK OF BBMP DUE TO IMPROVEMENTS OF CORRIDOR ALONG W.O.C ROAD FROM MANJUNATHNAGAR MAIN ROAD JUNCTION TO BASAVESHWARA MAIN ROAD JUNCTION COMING UNDER RAJAJINAGAR SERVICE STATION OF WEST- 2 SUB DIVISION, BWSSB

ABSTRACT

SL NO	PARTICULARS	AMOUNT (in Rs)
1	MANJUNATHNAGAR MAIN ROAD JUNCTION (Sub Estimate -1)	2334000.00
2	SHIVANAGAR IST & 8TH MAIN ROAD JUNCTION (Sub Estimate -2)	13881000.00
3	BASAVESHWARANAGAR IST MAIN ROAD JUNCTION (Sub Estimate -3)	3012000.00
	SUB TOTAL 'A' (SL NO 1 TO 3) = Rs	19227000.00
4	Add for Tender Premium 25% on Labour Portion 25% on (Rs22,41,749+Rs1,31,66,367+Rs.30,12,000) = Rs.1,84,20,116/-	4605029
5	Add for Escalation 15% on Materials portion 15% on (Rs.91750+Rs.714436) = Rs 8,06,186/-	120928
	SUB TOTAL 'B' (SL NO 1 TO 5) = Rs	23952957
6	Add for ETP charges 12.5% on sub total 'B'	2994120
7	MISC & ROUNDING OFF	2923
	GRAND TOTAL = Rs.	26950000.00


AE(Rajajinagar)


Asst Ex Engineer
West-2 Sub Division, BWSSB,
1st 'N' Block, Rajajinagar, Bangalore.


Executive Engineer
West Division, BWSSB,
RPC layout, Vijayanagar II stage,
Bangalore.

SUB ESTIMATE - 1

FOR THE WORK OF DEVIATION OF 24" CI WATER SUPPLY RISING MAIN BY PROVIDING 610MM DIA (OD) 7.9MM THK SAW MS PIPE IN SERVICE ROAD OF W.O.C ROAD FROM CHURCH NEAR 32ND CROSS (BBMP FLYOVER CHAINAGE 320 MTR) TO KEB QUARTERS (BBMP CHAINAGE 480 MTRS) MANJUNATHNAGAR MAIN ROAD JUNCTION, 2ND BLOCK, RAJAJINAGAR, WARD NO.99 COMING UNDER RAJAJINAGAR S/STN OF W-2 SUB DIVISION, BWWSB, UNDER DC WORKS OF BBMP DUE TO IMPROVEMENTS OF CORRIDOR OF W.O.C ROAD

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
A)	PART 'A' :- MATERIAL PORTION								
1)	150 mm dia DI pipe with rubber gasket K-7 class								
		Rmt					50.00	1415.00	70750.00
2)	150mm-dia CI sluice valve with TP set								
		No's					2	10500.00	21000.00
	Total Part "A" Material portion =Rs.								91750.00
B)	PART 'B' :- LABOUR PORTION								
1	Cutting road surface for pipeline trenches and disposing off the excavated stuff as directed including barricading, danger lighting etc., in the following classifications (BWSSB SR 2008-09, P - 5, I - 4.2)								
a)	Asphalt road								
i)	for pipeline trenches	Cum		210	1.2	0.3	75.60		
ii)	for linking pits	Cum	2	1.5	2.4	0.3	2.16		
						Total =	77.76	258.50	20101.00
2	Earth work excavation for pipeline trenches (except building works) including depositing on bank up to a lead of 30 mtrs including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 mtrs wherever necessary as directed in the following strata (BWSSB SR 2008-09, P - 3, I - 1.B)								
	0-2 mtr depth								
i)	for pipeline trenches	Cum		210	1.2	1.8	453.60		
ii)	for linking pits	Cum	2	1.5	2.4	2.25	16.20		
						Total =	469.80		
	deduct for asphalt road (Qty vide item No. 1)=						-77.76		
	Net Qty =						392.04		
a)	- do -In all soils mixed with boulders of 30 cms size upto and exclusive of disintegrate rock					50%	196.02	89.10	17465.00

ST NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
b)	- do - In disintegrated rock, soft shale and medium hard rock, comprising of lime stone, sand hard shale, schiest, fissured rock without resorting to blasting					30%	117.612	169.40	19923.00
c)	- do - in hard rock by chistelling					20%	78.41	828.30	64945.00
3	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of SAW MS pipe (Fe-410 grade) conforming to IS 3589-2001 with latest amendments including perfectr linking and welding of joints to correct position including cost and conveyance of pipes and materials with all lead and lift, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amnedments for pressure test and working presuure both at factory and site etc., complete as per detailed specification with inside CM 1:1.4 linig of minimum 10 mm thick upto 610 mm OD & minimum 12 mm thick beyond 610 mm OD and outside minimum 25 mm thicvk coating in CM 1:3 over 50 x 50 mm weeld mesh of 13 gauge, including loading and unloading of pipes for the following diameters nad specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (contractor will make his own arrangements for procuring water for testing) (BWSSB SR 2008-09, P-33, Item No. 1.9.4)								
	For 610 mm dia (OD) 7.9mm thick	Rmt		160			160.00	9852.70	1576432.00
4	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS specials of minimum 8mm thk conforming to IS 7322-1985 with latest amendments including perfectr linking and welding suitable to Spigots / sockets of CI pipes after setting into the pipe line system, including and introducing the rubber gasketto proper alignment and tightening the nuts and bolts, including cost of materials, all labour, transportation of materials, tools and plants etc., complete (Approved Data Rates of Board)								
	for 600 mm dia size	set	4				4.00	15910.00	63640.00
5	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS Specials of minimum 8mm thickness conforming to 7322.1985 with latest amendments including perfectr linking and welding of joints to correct position including cost and conveyance of materials with all lead and lift, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amnedments for pressure test and working presuure both at factory and site etc., complete as per detailed specification with inside linig of two coats of food grade epoxy painting of approved make with each coat of 250 micron, thick(after dry) over one coat of food grade epoxy primer of approved make with minimum of 50 micron thick (after dry) and outside minimum 25 mm thicvk coating in CM 1:3 over 50 x 50 mm weeld mesh of 13 gauge, including loading and unloading of pipes for the following category to suit PSC /MS/CI/AC/DI/PVC pipes. The rates are inclusive of all taxes and duties. The weight of MS shell only be considered before lining and coating to arrive at the rate.								

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
	The thickness of plate will be specified by the engineer (contractor will make his own arrangements for procuring water for testing) (BWSSB SR 2008-09, P-33, Item No. 1.9.4) For Bends								
	above 500 mm dia of pipe	Kgs					750.00	101.20	75900.00
	4No's bend of 1.50 mtr length each.								
	Wt=1) 4 no's* 3.14*0.602*0.0079*1.50*7850=703 Kgs, 2) 600 X 150 mm branch = 47 kgs ; Total = 750 Kgs								
6	Labour charges for laying Ductile iron pipes conforming to IS:8329-2000 with latest amendments, conveying to work site, rolling and lowering into trenches, true to line, level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of DI pipes and specials (excluding cost of specials) with rubber gasket, jacking & fixing to perfect conditions including cost of soap solutions, soft soap, waste, etc., and giving necessary hydraulic test to the required pressure as per IS with all lead and lift including cost of jointing materials (contractor will make his own arrangements for procuring water for testing) (BWSSB SR 2008-09, P-32, I-1.2)								
	for 150 mm dia K-7 class	Rmt		50			50.00	49.50	2475.00
7	Labour charges for fixing of CI valves of sizes this includes joining of tail pieces (rubber insertion, nuts & bolts to be supplied by the board) and fixing in pipeline and etc., (BWSSB SR 2008-09, P-15, I-12.3)								
	150 mm dia	No's	2				2.00	96.80	194.00
8	Providing and laying vibrated cement concrete of 1:2:4 proportion for RCC work with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including cost of conveyance of all materials with all lead and lift including machine mixing, centering, plywood / steel form work, scaffolding, tamping, curing, cement mortar plastering in CM. 1:3 proportion, 12mm thick excluding cost of reinforcement. (BWSSB SR 2008-09, P-28, I-6.1) for Thrust block								
		Cum	4	3	1.8	2.5	54.00	6762.80	365191.00
9	KSRB 4-9.2: Providing TMT 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 and wastages shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specification No. KBS 4.6.3) PWD SR 2011-12 P-121 I No.4.45) 150mm C/C skin reinforcement only								
		Qtl					5.00	4150.00	20750.00
10	Refilling pipeline trenches and foundation with selected available earth from trench excavation and foundation including watering, consolidation in layer of 15 cms thickness including disposing off the surplus earth with all lead and lifts of 20 mtrs (BWSSB SR 2008-09, P-5, I-2)								
		Cum		Qty as in Item 1+ 2			469.80	26.40	12403.00

S. NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
11	Supplying and fixing pre cast RCC slabs of 1:11/2: 3 with size 600x600x200mm for valve cistern (per slab) for 100mm & 150mm dia valve (data rate approved by ACE(M)-II vide ltr No. 2500 Dt:27/7/2007.)								
		No's	2				2	1165.00	2330.00
							Total Part "B" labour portion =Rs.		2241749.00
12	Misc and rounding off								501.00
							Grand Total part 'A' + part 'B' = Rs		2334000.00

[Signature]
AE(Rajajinagar)

[Signature]
Asst Ex Engineer
West-2 Sub Division, BWSSB,
1st 'N' Block, Rajajinagar, Bangalore.

[Signature]
Executive Engineer
West Division, BWSSB,
RPC layout, Vijayanagar II
stage, Bangalore.

SUB ESTIMATE - 2

FOR THE WORK OF DEVIATION OF 24" CI WATER SUPPLY RISING MAIN BY PROVIDING 610MM DIA (OD) 7.9MM THK SAW MS PIPE IN SERVICE ROAD OF W.O.C ROAD FROM KEB STATION (BBMP UNDERPASS CHAINAGE 560 MTR) TO 18TH A MAIN (BBMP CHAINAGE 1200 MTRS) SHIVANAGAR IST & 8TH MAIN ROAD JUNCTION, 3RD & 5TH BLOCK, RAJAJINAGAR, WARD NO.107 & 108 COMING UNDER RAJAJINAGAR S/STN OF W-2 SUB DIVISION, BWSSB, UNDER DC WORKS OF BBMP DUE TO IMPROVEMENTS OF CORRIDOR OF W.O.C ROAD

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
A)	PART 'A' :- MATERIAL PORTION								
1)	150 mm dia DI pipe with rubber gasket K-7 class								
		Rmt					110.00	1415.00	155650.00
2)	CI sluice valve with TP set								
a)	600 mm dia	No's					2	108461.00	216922.00
b)	450 mm dia	No's					4	55380.00	221520.00
c)	300 mm dia	No's					4	25245.00	100980.00
d)	150 mm dia	No's					2	9682.00	19364.00
	Total Part "A" Material portion =Rs.								714436.00
B)	PART 'B' :- LABOUR PORTION								
1	Cutting road surface for pipeline trenches and disposing off the excavated stuff as directed including barricading, danger lighting etc., in the following classifications (BWSSB SR 2008-09, P - 5, I - 4.2)								
a)	Asphalt road								
	WOC road								
i)	for pipeline trenches	Cum		1480	1.2	0.3	532.80		
ii)	for linking pits	Cum	12	1.5	2.4	0.3	12.96		
	Cross roads 41st cross & 50th cross								
i)	for pipeline trenches	Cum		110	0.6	0.3	19.80		
ii)	for linking pits	Cum	4	1.5	2.4	0.3	4.32		
							Total =	569.88	258.50
									147314.00
2	Earth work excavation for pipeline trenches (except building works) including depositing on bank up to a lead of 30 mtrs including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 mtrs wherever necessary as directed in the following strata (BWSSB SR 2008-09, P - 3, I - 1.B)								
	0-2 mtr depth								
	WOC road for 610 mm dia pipe								
i)	for pipeline trenches	Cum		1480	1.2	1.8	3196.80		
ii)	for linking pits	Cum	12	1.5	2.4	2.25	97.20		
	Cross roads 41st cross & 50th cross								

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
i)	for pipeline trenches	Cum		110	1.2	1.2	158.40		
ii)	for linking pits	Cum	4	1.2	2	1.5	14.40		
						Total =	3466.80		
	deduct for asphalt road (Qty vide item No.1)=						-569.88		
						Net Qty =	2896.92		
a)	- do -In all soils mixed with boulders of 30 cms size upto and exclusive of disintegrate rock					50%	1448.46	89.10	129058.00
b)	- do - In disintegrated rock, soft shale and medium hard rock, comprising of lime stone, sand hard shale, schiest, fissured rock without resorting to blasting					30%	869.076	169.40	147221.00
c)	- do - in hard rock by chistelling					20%	579.38	828.30	479904.00
3	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of SAW MS pipe (Fe-410 grade) conforming to IS 3589-2001 with latest amendments including perfect linking and welding of joints to correct position including cost and conveyance of pipes and materials with all lead and lift, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amnedments for pressure test and working presuure both at factory and site etc., complete as per detailed specification with inside CM 1:1.4 linig of minimum 10 mm thick upto 610 mm OD & minimum 12 mm thick beyond 610 mm OD and outside minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weeld mesh of 13 gauge, including loading and unloading of pipes for the following diameters nad specified thickness of plate as noted below, including bailing out of water wherever necessary. The rates are inclusive of all taxes and duties. (contractor will make his own arrangements for procuring water for testing) (BWSSB SR 2008-09, P-33 , Item No. 1.9.4)								
a)	For 610 mm dia (OD) 7.9mm thick (Along Chord Road)	Rmt		640			640.00	9852.70	6305728.00
b)	For 508 mm dia (OD) 7.1mm thick (Along 59th cross for Rajajinagar)	Rmt		120			120.00	7575.70	909084.00
c)	For 457 mm dia (OD) 6.4mm thick (Along service road of Shivanagar side from Ch 1040 to Ch 1180 Shivanagar & in Ist main Shivanagar)	Rmt		220			220.00	6359.10	1399002.00
d)	For 323.9 mm dia (OD) 5.6mm thick (Along service road of Shivanagar side from Ch 540 to Ch 1040 Shivanagar)	Rmt		500			500.00	4154.70	2077350.00

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
4	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS specials of minimum 8mm thk conforming to IS 7322-1985 with latest amendments including perfect linking and welding suitable to Spigots / sockets of CI pipes after setting into the pipe line system, including and introducing the rubber gasket to proper alignment and tightening the nuts and bolts, including cost of materials, all labour, transportation of materials, tools and plants etc., complete. (Approved Data Rates of Board)								
a)	for 600 mm dia size	set	5				5.00	15910.00	79550.00
b)	for 508 mm dia size	set	2				2.00	15910.00	31820.00
c)	for 457 mm dia size	set	4				4.00	10690.00	42760.00
d)	for 323.9 mm dia size	set	6				6.00	6959.00	41754.00
5	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS Specials of minimum 8mm thickness conforming to 7322.1985 with latest amendments including perfect linking and welding of joints to correct position including cost and conveyance of materials with all lead and lift, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for pressure test and working pressure both at factory and site etc., complete as per detailed specification with inside lining of two coats of food grade epoxy painting of approved make with each coat of 250 micron, thick (after dry) over one coat of food grade epoxy primer of approved make with minimum of 50 micron thick (after dry) and outside minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following category to suit PSC /MS/CI/AC/DI/PVC pipes. The rates are inclusive of all taxes and duties. The weight of MS shell only be considered before lining and coating to arrive at the rate. The thickness of plate will be spec								
a)	above 500 mm dia of pipe	Kgs					1102.00	101.20	111522.00
	4 No's bend of 1.50 mtr length each. Wt=1) 6 no's* 3.14*0.602*0.0079*1.50*7850=1055 Kgs, 2) 600 X 150 mm branch = 47 kgs, Total = 1102 Kgs								
b)	upto & inclusive of 500 mm dia of pipe	Kgs					1163.00	110.00	127930.00
	Wt=1) 4 no's* 3.14*0.500*0.0071*1.50*7850=526 Kgs, (for 508mm dia) 2) 4 no's* 3.14*0.450*0.0064*1.50*7850=426 Kgs, (for 457mm dia) 3) 4 no's* 3.14*0.324*0.0056*1.50*7850=211Kgs, (for 324mm dia) Total = 1163 Kgs								
6	Labour charges for fixing of CI valves of sizes this includes joining of tail pieces (rubber insertion, nuts & bolts to be supplied by the board) and fixing in pipeline and etc., (BWSSB SR 2008-09, P - 15, I - 12.3)								
a)	600 mm dia	No's	2				2.00	463.10	926.00
b)	450 mm dia	No's	4				4.00	354.20	1417.00
c)	300 mm dia	No's	4				4.00	225.50	902.00
d)	150 mm dia	No's	2				2.00	96.80	194.00

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
a)	for 600mm dia valve	No's	2				2	42000.00	84000.00
b)	for 450 mm dia valve	No's	8				8	32000.00	256000.00
13	Supplying and fixing pre cast RCC slabs of 1:11/2: 3 with size 600x600x200mm for valve cistern (per slab) for 100mm & 150mm dia valve (data rate approved by ACE(M)-II vide ltr No. 2500 Dt:27/7/2007.)								
		No's	2				2	1165.00	2330.00
							Total Part "B" labour portion =Rs.		13166367.00
14	Misc and rounding off								197.00
							Grand Total part 'A' + part 'B' = Rs		13881000.00

AE(Rajajinagar)

Asst Ex Engineer
West-2 Sub Division, BWSSB,
1st 'N' Block, Rajajinagar, Bangalore.

Executive Engineer
West Division, BWSSB,
RPC layout, Vijayanagar II
stage, Bangalore.

SL NO.	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
	For 610 mm dia (OD) 7.9mm thick	Rmt		240			240.00	9852.70	2364648.00
4	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS specials of minimum 8mm thk conforming to IS 7322-1985 with latest amendments including perfect linking and welding suitable to Spigots / sockets of CI pipes after setting into the pipe line system, including and introducing the rubber gasket to proper alignment and tightening the nuts and bolts, including cost of materials, all labour, transportation of materials, tools and plants etc., complete. (Approved Data Rates of Board)								
	for 600 mm dia size	set	2				2.00	15910.00	31820.00
3	Manufacturing, providing, transporting, rolling, lowering, laying & jointing, testing, commissioning of MS Specials of minimum 8mm thickness conforming to 7322.1985 with latest amendments including perfect linking and welding of joints to correct position including cost and conveyance of materials with all lead and lift, cost of all labour and giving satisfactory hydraulic test as per IS 3589-2001 with latest amendments for pressure test and working pressure both at factory and site etc., complete as per detailed specification with inside lining of two coats of food grade epoxy painting of approved make with each coat of 250 micron thick (after dry) over one coat of food grade epoxy primer of approved make with minimum of 50 micron thick (after dry) and outside minimum 25 mm thick coating in CM 1:3 over 50 x 50 mm weld mesh of 13 gauge, including loading and unloading of pipes for the following category to suit PSC /MS/CI/AC/DI/PVC pipes. The rates are inclusive of all taxes and duties. The weight of MS shell only be considered before lining and coating to arrive at the rate.								
	The thickness of plate will be specified by the engineer (contractor will make his own arrangements for procuring water for testing) (BWSSB SR 2008-09, P-33, Item No. 1.9.4) For Bends								
	above 500 mm dia of pipe	Kgs					750.00	101.20	75900.00
	4 No's bend of 1.50 mtr length each.								
	Wt=1) 4 no's* 3.14*0.602*0.0079*1.50*7850=703 Kgs, 2) 600-X-150-mm-branch = 47 kgs; Total = 750 Kgs								
	Providing and laying vibrated cement concrete of 1:2:4 proportion for RCC work with 20 mm and down size of approved gradation hard broken granite, trap, basalt or with any other approved hard aggregate including cost of conveyance of all materials with all lead and lift including machine mixing, centering, plywood / steel form work, scaffolding, tamping, curing, cement mortar plastering in CM 1:3 proportion, 12mm thick excluding cost of reinforcement. (BWSSB SR 2008-09, P-28, I-6.1)								
		Cum	4	3	1.8	2.5	54.00	6762.80	365191.00
6	KSRB 4-9.2: Providing TMT 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 and wastages shall not be measured and paid) cost of materials, labour, H.O.M of machinery complete as per specification No. K.B.S 4.6.3) PWD SR 2011-12 P-121 I No.4.45) 150mm C/C skin reinforcement only								
		Qtl					5.00	4150.00	20750.00

SL NO	PARTICULARS	UNIT	NO'S	L	B	D	QTY	RATE (in Rs)	AMOUNT (in Rs)
6	Refilling pipeline trenches and foundation with selected available earth from trench excavation and foundation including watering, consolidation in layer of 15 cms thickness including disposing off the surplus earth with all lead and lifts of 20 mtrs (BWSSB SR 2008-09, P - 5 , 1 - 2)								
		Cum				Qty as in Item 1+ 2	534.60	26.40	14113.00
7	Misc & rounding off								255.00
									Grand Total (only Labour portion) = Rs 3012000.00

AE(Rajajinagar)

Asst Ex Engineer
West-2 Sub Division, BWSSB,
1st 'N' Block, Rajajinagar, Bangalore.

C. C. Puthan
Executive Engineer
West Division, BWSSB,
RPC layout, Vijayanagar II
stage, Bangalore.

Chapter 7

Conclusion

CHAPTER 7 CONCLUSION

7.1 The Project Corridor is a part of Chord Road and is one of the busiest stretches in the City. The Project Corridor is located in North West Quadrant of Bangalore and connects NH – 4 at Yeshwanthapura on northern side with Mysore Road (SH – 17) on southern side and it starts at Manjunath Nagar Main Road Junction, which is 450m away from the Modi Hospital Junction, and ends at Chord Road – Magadi Road Junction. Such is the density of vehicles that the Traffic Signals have become redundant along this Corridor. Stretching around 10 km between Yeshwanthpur and Mysore Road, the peak hour traffic along the Chord Road Corridor is more than 6000 PCU / hr. This Road is not spared even on Holidays as it is the Gateway to Wonderla in Bidadi, Mysore, etc. on Southern Side and to Tumkur, Hassan, Chikmagalur, etc. on northern side. The movement of vehicles has increased on Chord Road as it connects NH – 4 to Mysore Road. The Study Area is located in Thickly Developed Residential and Commercial Area and is surrounded by some of the well know establishments like Yeshwanthpur Railway Station, Iskon Temple, Vivekananda College, Mother Teresa Hospital, Navarang Theatre, Modi Hospital, etc.

The National Highway Authority of India (NHAI) is developing Elevated Corridor along NH – 4, this Development will definitely will increase the afflux of Traffic in this Corridor. Further, in this Corridor, Metro Work is being carried upto Modi Hospital Junction on the northern side and Chord Road – Magadi Road Junction downwards on the southern side. But, this Metro Rail Facility will not cater to the need of the to and from Traffic between Yeshwanthpura and Mysore Road. Further, with the spurt in the economy, the Land Use Patterns of this Northern Part of the City Area have been changing at a very fast pace since 10 years. Many of the Self Containing Residential Areas in and around this Corridor, such as Rajajinagar, Mahalakshmi Layout, Malleshwaram, Basaveshwara Nagar, are being converted into Partial Commercial Establishments. With this change in the Land Use Pattern, Traffic along this Corridor has been increased considerably in last 10 years time. Many large Residential Site are being converted into Apartments / Flats, Mini Township (Brigade Gateway) in and around this Corridor and a site that would house either a family or two now will be able to house multiple number of families and with this the number of Vehicle / Traffic also will increase manifold in a couple of years. The existing Grade Separators along this Corridor (Flyover at Yeshwanthpura Circle, Underpass at Modi Hospital Junction and Underpass at Chord Road – Magadi Road Junction) are providing Uninterrupted, Seamless Traffic Flow along a part of this Corridor.

These being the Background, the Bruhath Bangalore Mahanagara Palike has proposed to construct Grade Separator at Major Junctions and to close Median at Minor Junctions with Appurtenant Link Improvements from Manjunath Nagar Main Road Junction to Chord Road – Magadi Road Junction along Chord Road covering a total of 6 Junctions (out of which, 4 Junctions have been taken for improvement) for a total length of 2.9 km in order to provide Uninterrupted, Seamless Traffic Flow and to Increase Level of Service along the Corridor.

7.2 Existing Junctions along the Project Corridor

The following Junctions are present along the Project Corridor.

The following Junctions are present along the Project Corridor.

- Manjunath Nagar Main Road Junction – Three Arm ('T' Shaped) Junction.
- Shivanagar 8th Main Road Junction – Four Arm Junction.
- Shivanagar 1st Main Road Junction – Four Arm Junction.
- Basaveshwara Nagar 1st Main Road Junction – Three Arm ('T' Shaped) Junction.
- Junction near Fire Station – Four Arm Junction.
- Chord Road – Magadi Road Junction – Four Arm Junction.

7.3 Junctions proposed for Improvements

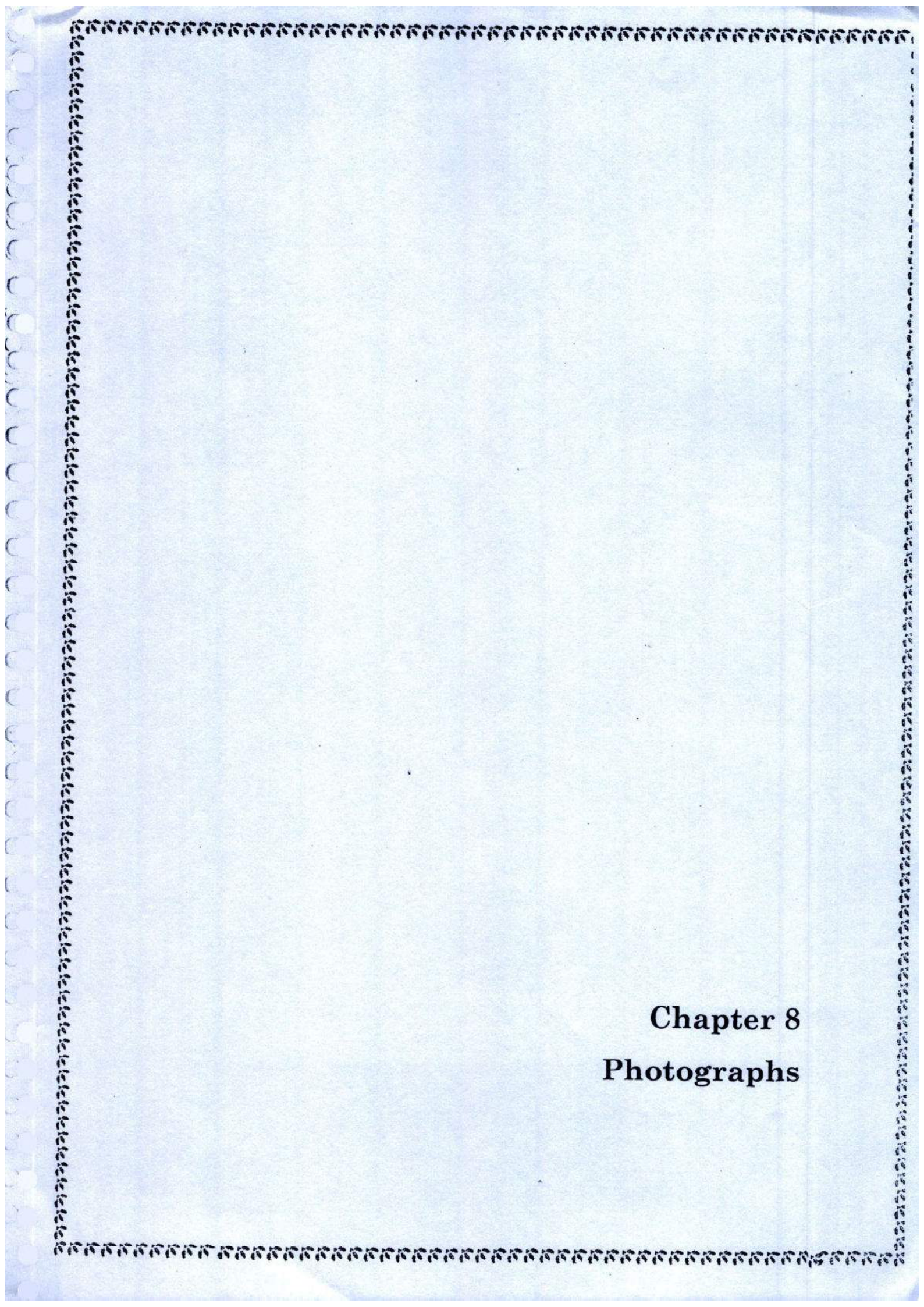
The following Junctions have been taken for the proposed Improvements.

- Manjunath Nagar Main Road Junction.
- Shivanagar 8th Main Road Junction.
- Shivanagar 1st Main Road Junction.
- Basaveshwara Nagar 1st Main Road Junction.

7.4 For the proposed Corridor Improvement Scheme, the total Cost of the Project has been worked out as Rs. 5800.00 Lakh including Land Acquisition and Utility Shifting Cost.

7.5 To keep pace with the High Density of Traffic, it is Techno Economically Feasible to take up this Project along the mentioned stretches of Chord Road.

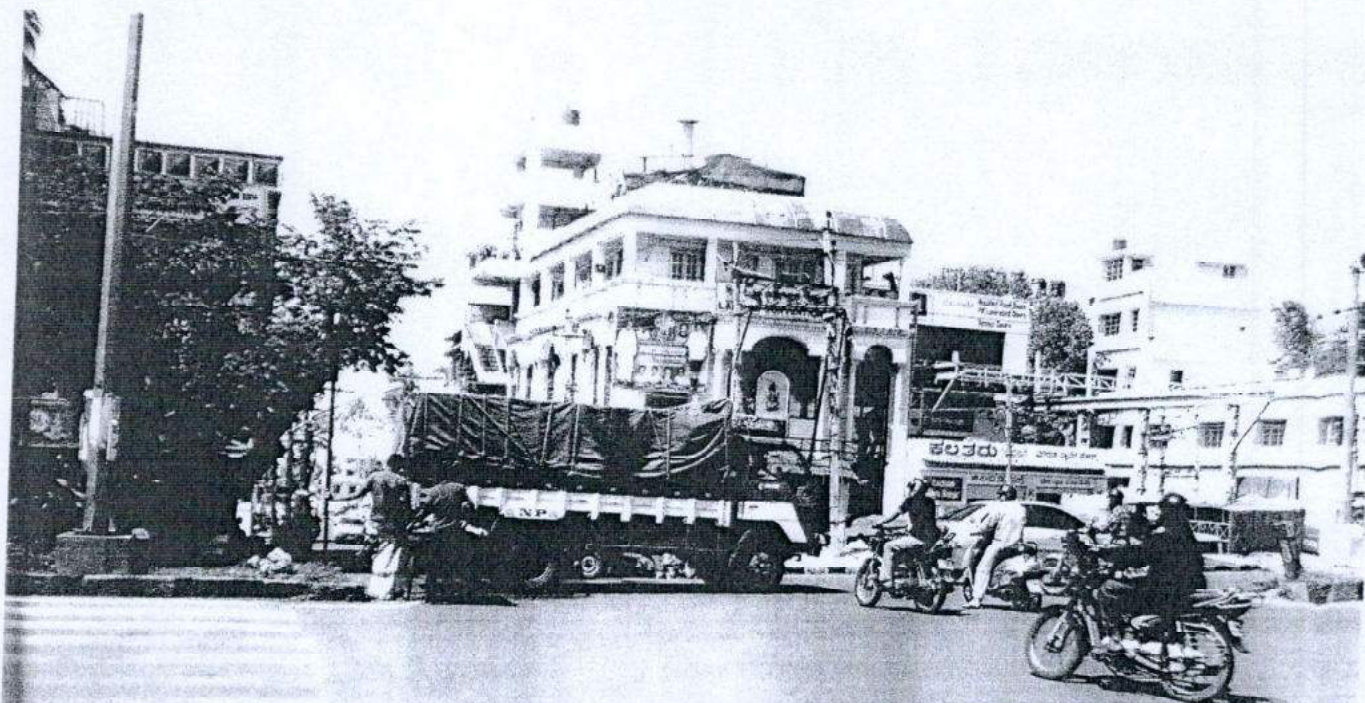
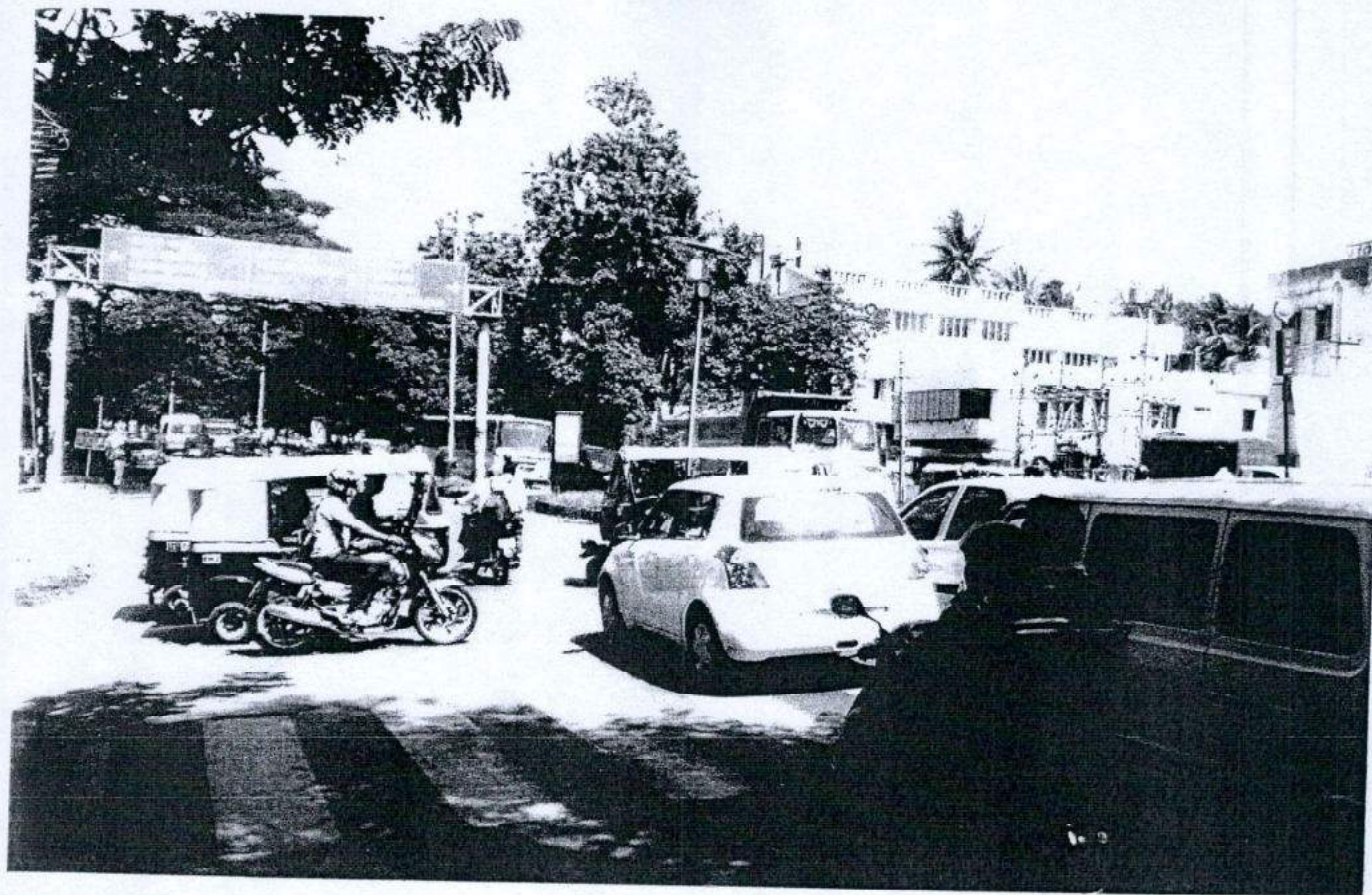




Chapter 8

Photographs

EXISTING VIEWS OF MANJUNATH NAGAR MAIN ROAD JUNCTION



EXISTING VIEWS OF MANJUNATH NAGAR MAIN ROAD JUNCTION



EXISTING VIEWS OF SHIVANAGAR 1st MAIN ROAD JUNCTION



EXISTING VIEWS OF SHIVANAGAR 1st MAIN ROAD JUNCTION

