

Detailed Estimate

Improvements to Andhakarathodu in Trippunithura Municipality

(Cost Index Applied for this estimate is 46.08%)

Sl No	Description	No	L	B	D	CF	Quantity	Remark	
1 APPENDIX A- THODU CLEANING AND DESILTING									
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared								
		2	335.000	2.500			1675.000		
		1	360.000	5.000			1800.000		
		1	30.000	4.000			120.000		
		Total Quantity						3595.000 sqm	
		Total Deducted Quantity						0.000 sqm	
		Net Total Quantity						3595.000 sqm	
		Say 3595.000 sqm @ Rs 10.52 / sqm						Rs 37819.40	
2	2.33.1 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 30 cm girth up to and including 60 cm girth								
		50					50.000		
		Total Quantity						50.000 each	
		Total Deducted Quantity						0.000 each	
		Net Total Quantity						50.000 each	
		Say 50.000 each @ Rs 320.21 / each						Rs 16010.50	
3	2.33.3 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 120 cm girth up to and including 240 cm girth								
		10					10.000		
		Total Quantity						10.000 each	
		Total Deducted Quantity						0.000 each	
		Net Total Quantity						10.000 each	
		Say 10.000 each @ Rs 6579.81 / each						Rs 65798.10	
4	od3877/2018_2019/IA Earth work in excavation by mechanical means (Hydraulic excavator) /manual means over areas in all								

	kinds of soil (exceeding 30 cm in depth ,1.5m in width as well as 10sqm on plan) in or under water including temporary stacking on banks/suitable location for further conveyance and disposal of excavated earth including all necessary leads and lifts .								
	near champakkara canal to foot bridge	1	35.000	30.000	0.500		525.000		
	do	1	300.000	19.000	1.000		5700.000		
	foot bridge to box culvert	1	280.000	19.000	1.000		5320.000		
	do	1	80.000	11.000	1.000		880.000		
	box culvert to hospital rd	1	70.000	10.000	1.000		700.000		
	do	1	140.000	7.000	1.000		980.000		
	hospital rd to Kottayam rd	1	405.000	7.000	1.000		2835.000		
	Kottayam rd to market rd	1	190.000	7.000	1.000		1330.000		
	market rd to konothupuzha	1	150.000	12.000	1.000		1800.000		
	do	1	135.000	16.000	1.000		2160.000		
	do	1	365.000	19.000	1.000		6935.000		
	m o u t h o f Champakkara canal	1	100.000	20.000	1.000		2000.000		
	m o u t h o f konothupuzha	1	50.000	30.000	1.000		1500.000		
	Total Quantity						32665.000 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						32665.000 cum		
	Say 32665.000 cum @ Rs 296.38 / cum						Rs 9681252.70		
SI No	Description	No	L	B	D	CF	Quantity	Remark	
2 APPENDIX B- SIDE PROTECTION WORK									
1	od3878/2018_2019/IA Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in or under water in all kinds of soil for foundation, trenches or drains (not exceeding 1.50m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m.								
	Foundation wall	1	1250.000	1.350	0.500		843.750		
	Total Quantity						843.750 cum		

							Total Deducted Quantity	0.000 cum
							Net Total Quantity	843.750 cum
							Say 843.750 cum @ Rs 367.29 / cum	Rs 309900.94
2	60.7.3 DISMANTLING DR - Dismantling , clearing away and carefully stacking materials useful for reuse for any thickness of walls in DR masonry including disposal of debris within a distance of 150m.							
	wall	1	800.000	0.750	1.000		600.000	
	pitching	1	400.000	3.000	0.220		264.000	
							Total Quantity	864.000 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	864.000 cum
							Say 864.000 cum @ Rs 437.07 / cum	Rs 377628.48
3	60.64.1 Coconut Pile - Supplying and stacking well matured straight coconut post for driving down through various strata bellow bed level including cost covoyance labour charges etc complete.							
		1600			2.500		4000.000	
							Total Quantity	4000.000 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	4000.000 metre
							Say 4000.000 metre @ Rs 137.60 / metre	Rs 550400.00
4	60.64.4 Coconut Pile - Driving down coconut pile to lines and levels through variuos strata including all hire charges and labour for fixing , staging platform and all other appliances necessary for pile driving down after pointing the bottom end							
		1600			2.500		4000.000	
							Total Quantity	4000.000 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	4000.000 metre
							Say 4000.000 metre @ Rs 782.99 / metre	Rs 3131960.00
5	60.7.8 DR with Departmental. Stone - DRY RUBBLE MASONRY _ Dry rubble without concrete levelling course using departmental rubble including packing to compactness to lines and levels, labour charges etc. complete as per direction of Departmental officers at site							
		1	600.000				600.000	
							Total Quantity	600.000 cum
							Total Deducted Quantity	0.000 cum

						Net Total Quantity	600.000 cum	
						Say 600.000 cum @ Rs 1045.20 / cum	Rs 627120.00	
6	60.7.2	DR PACKING Under foundation - Dry stone packing under foundation with good quality blasted rubble including conveyance of material and labour charges etc. complete as per direction of departmental officers at site.						
		1	600.000				-600.000	
		1	1250.000	1.350	0.500		843.750	
						Total Quantity	843.750 cum	
						Total Deducted Quantity	-600.000 cum	
						Net Total Quantity	243.750 cum	
						Say 243.750 cum @ Rs 2159.35 / cum	Rs 526341.56	
7	60.7.1	DRY RUBBLE MASONRY _ Dry rubble without concrete levelling course masonry with good quality blasted rubble including packing to compactness to lines and levels cost and conveyance of all materials labour charges etc. complete as per direction of Departmental officers at site						
		1	1250.000	0.875	2.000		2187.500	
						Total Quantity	2187.500 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	2187.500 cum	
						Say 2187.500 cum @ Rs 2803.71 / cum	Rs 6133115.63	
8	7.2.1	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like.Cement mortar 1:6 (1 cement : 6 coarse sand)						
	protection wall	1	1250.000	0.500	0.500		312.500	
	kadavu	1	37.500				37.500	
						Total Quantity	350.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	350.000 cum	
						Say 350.000 cum @ Rs 7004.76 / cum	Rs 2451666.00	
9	od3889/2018_2019/IA	Centering and shuttering including strutting, etc. and removal of form for pre cast pile						
	pile	511	0.900		8.000		3679.201	
	"	224	0.900		6.000		1209.601	

	grooves	701.198					701.198	
						Total Quantity	5590.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	5590.000 sqm	
						Say 5590.000 sqm @ Rs 683.44 / sqm	Rs 3820429.60	
10	od3882/2018_2019/IA Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work upto plinth level for pre cast concrete piles							
	deduction for grooves	495	0.200	0.100	4.000		-39.600	
		213	0.200	0.100	2.000		-8.520	
	8m ht	511	0.300	0.300	8.000		367.920	
	6m ht	224	0.300	0.300	6.000		120.961	
	pile shoe 1/3 x 3.14x.15x.15x.45	735				0.0106	7.791	
						Total Quantity	496.672 cum	
						Total Deducted Quantity	-48.120 cum	
						Net Total Quantity	448.552 cum	
						Say 448.552 cum @ Rs 9417.00 / cum	Rs 4224014.18	
11	od2761/2018_2019/IA Conveying pre cast RCC pile 30cmx30cmx6m to the site from the place of casting including lifting,hoisting, aligning and placing in position <i>Contractor own yard</i>							
		224					224.000	
						Total Quantity	224.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	224.000 each	
						Say 224.000 each @ Rs 1076.40 / each	Rs 241113.60	
12	od2805/2018_2019/IA Conveying pre cast RCC pile 30cmx30cmx8m to the site from the place of casting including lifting,hoisting, aligning and placing in position <i>Contractor own yard</i>							
		511					511.000	
						Total Quantity	511.000 each	

						Total Deducted Quantity	0.000 each
						Net Total Quantity	511.000 each
						Say 511.000 each @ Rs 1242.81 / each	Rs 635075.91
13	od2800/2018_2019/IA Driving and installing precast reinforced cement concrete piles						
		1	2940.000				2940.000
						Total Quantity	2940.000 metre
						Total Deducted Quantity	0.000 metre
						Net Total Quantity	2940.000 metre
						Say 2940.000 metre @ Rs 1350.82 / metre	Rs 3971410.80
14	od3894/2018_2019/IA Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) for wearing coat over R.R.Masonry						
		1	1250.000	0.500	0.050		31.250
						Total Quantity	31.250 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	31.250 cum
						Say 31.250 cum @ Rs 7197.36 / cum	Rs 224917.50
15	5.9.5 Centering and shuttering including strutting, etc. and removal of form for: Lintels, beams, plinth beams, girders bressumers and cantilevers						
		1	1770.000				1770.000
						Total Quantity	1770.000 sqm
						Total Deducted Quantity	0.000 sqm
						Net Total Quantity	1770.000 sqm
						Say 1770.000 sqm @ Rs 500.91 / sqm	Rs 886610.70
16	od3884/2018_2019/IA Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:1/2:3 (cement : 1 1/2 coarse sand : 3 graded stone aggregate 20 mm nominal size) for anchor blocks, anchor beams, tie beams etc.						
	anchor beams -	240	0.150	0.150	2.500		13.500
	anchor blocks	240	0.750	0.750	0.500		67.500
	tie beam for piles	1	980.000	0.300	0.300		88.200
						Total Quantity	169.200 cum

						Total Deducted Quantity	0.000 cum
						Net Total Quantity	169.200 cum
						Say 169.200 cum @ Rs 8654.76 / cum	Rs 1464385.39
17	od3885/2018_2019/IA	Providing, hoisting and fixing precast reinforced cement concrete slabs (casting at contractors own casting yard), cost of required centering, shuttering and finishing with neat cement punning wherever required inserting in to the pile grooves but excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)					
	precast slab 4.0m ht	1	687.000	4.000	0.075		206.100
	precast slab 2m ht	1	293.000	2.000	0.075		43.950
						Total Quantity	250.050 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	250.050 cum
						Say 250.050 cum @ Rs 18589.54 / cum	Rs 4648314.48
18	5.22.6	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more					
		1	76000.000				76000.000
						Total Quantity	76000.000 kilogram
						Total Deducted Quantity	0.000 kilogram
						Net Total Quantity	76000.000 kilogram
						Say 76000.000 kilogram @ Rs 82.68 / kilogram	Rs 6283680.00
19	16.72	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at stie.					
		1	825.000	5.000	0.225		928.125
						Total Quantity	928.125 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	928.125 cum
						Say 928.125 cum @ Rs 1286.23 / cum	Rs 1193782.22
20	16.73	Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete (Payment for stone to be made separately)					
		1	825.000	5.000			4125.000
						Total Quantity	4125.000 sqm
						Total Deducted Quantity	0.000 sqm

							Net Total Quantity	4125.000 sqm
							Say 4125.000 sqm @ Rs 408.07 / sqm	Rs 1683288.75
21	13.33.1	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand):Flush/ Ruled pointing						
	flush/ruled pointing	1	825.000	5.000			4125.000	
	existing portion pointing	1	375.000	5.000			1875.000	
							Total Quantity	6000.000 sqm
							Total Deducted Quantity	0.000 sqm
							Net Total Quantity	6000.000 sqm
							Say 6000.000 sqm @ Rs 246.07 / sqm	Rs 1476420.00
22	60.1.2	RING BUND Type II Putting up ring bund with earth fille gunny bags of top width 1.0m bottom width 2.0m height 2.0 m side and filling in between with earth to form ring bund and maintaining the same leak proof till the completion of the work and clearing the site by dismantling the bund after completion of the work.etc.complete.						
		10	22.000	$\left[\frac{2 \dots + 100}{2} \right] \times 2$			220.000	
							Total Quantity	220.000 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	220.000 metre
							Say 220.000 metre @ Rs 1057.98 / metre	Rs 232755.60
23	60.2.6	BAILING OUT WATER USING PUMP ABOVE 30HP AND UP TO 40HP - Bailing out water with engine and pump set above 30HP and up to 40HP, including conveyance to site and erection, cost of fuel, lubrication oil and other stores, pay of staff etc complete						
		1	1000.000				1000.000	
							Total Quantity	1000.000 hour
							Total Deducted Quantity	0.000 hour
							Net Total Quantity	1000.000 hour
							Say 1000.000 hour @ Rs 788.12 / hour	Rs 788120.00
SI No	Description	No	L	B	D	CF	Quantity	Remark
3 APPENDIX C								Roads & walkways
1	50.2.26.1	Filling with contractor own earth (excluding rock) in open areas in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge.						
		2	700.000	2.000	0.400		1120.000	

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		1	1415.000	2.000	0.300		849.000		
		Total Quantity					1969.000 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					1969.000 cum		
		Say 1969.000 cum @ Rs 291.06 / cum						Rs 573097.14	
2	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.							
		1	300.000	3.000			900.000		
		Total Quantity					900.000 sqm		
		Total Deducted Quantity					0.000 sqm		
		Net Total Quantity					900.000 sqm		
		Say 900.000 sqm @ Rs 131.62 / sqm						Rs 118458.00	
3	16.78.3	Construction of granular sub- base by Providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, Carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in- Charge. With material conforming to Grade - III (size range 26.5 mm to 0.075 mm) having CBR Value - 20							
		1	300.000	3.000	0.150		135.000		
		1	1900.000	3.000	0.150		855.000		
		Total Quantity					990.000 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					990.000 cum		
		Say 990.000 cum @ Rs 2821.54 / cum						Rs 2793324.60	
4	od3890/2018_2019/IA	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50 mm thick compacted bed of coarse sand/6mm metal, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.							
	walkway	1	2170.000	2.000			4340.000		
		Total Quantity					4340.000 sqm		
		Total Deducted Quantity					0.000 sqm		
		Net Total Quantity					4340.000 sqm		

	Say 4340.000 sqm @ Rs 899.43 / sqm						Rs 3903526.20	
5	4.1.2 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:1/2:3 (cement : 1 1/2 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	guard stones	500	0.200	0.200	0.750		15.001	
	Total Quantity						15.001 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						15.001 cum	
	Say 15.001 cum @ Rs 8654.73 / cum						Rs 129829.60	
6	5.9.5 Centering and shuttering including strutting, etc. and removal of form for: Lintels, beams, plinth beams, girders bressumers and cantilevers							
	guard stones	500	0.800		0.750		300.001	
	Total Quantity						300.001 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						300.001 sqm	
	Say 300.001 sqm @ Rs 500.91 / sqm						Rs 150273.50	
7	5.22.6 Steel reinforcement for R.C.C work including Irrigation straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
		1	15.000		50.0		750.000	
	Total Quantity						750.000 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						750.000 kilogram	
	Say 750.000 kilogram @ Rs 82.68 / kilogram						Rs 62010.00	
8	16.69 Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) , including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5 mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-Charge)							
		2	2170.000	0.150	0.375		244.125	
	Total Quantity						244.125 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						244.125 cum	

		Say 244.125 cum @ Rs 7322.48 / cum					Rs 1787600.43	
9	16.91.2 Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge. 80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.							
		1	2175.000	3.000			6525.000	
		Total Quantity					6525.000 sqm	
		Total Deducted Quantity					0.000 sqm	
		Net Total Quantity					6525.000 sqm	
		Say 6525.000 sqm @ Rs 933.38 / sqm					Rs 6090304.50	
10	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	For kerb stone	2	2170.000	0.300	0.150		195.300	
	fencing post	1282	0.450	0.450	0.150		38.941	
		Total Quantity					234.241 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					234.241 cum	
		Say 234.241 cum @ Rs 6541.68 / cum					Rs 1532329.66	
11	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	fencing [(2x1600/2.5)+2]	1282	0.230	0.230	0.750		50.864	
	step, ramp etc	1				5.0	5.000	
		Total Quantity					55.864 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					55.864 cum	
		Say 55.864 cum @ Rs 8008.03 / cum					Rs 447360.59	
12	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation							

	trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil							
	Fencing post	1282	0.450	0.450	0.750		194.704	
	Total Quantity						194.704 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						194.704 cum	
	Say 194.704 cum @ Rs 243.08 / cum						Rs 47328.65	
13	16.19 Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.							
	75x75x6 mm angle	2*1282	2.300	6.800			40100.960	
	50x50x2 mm sq tube	6	1600.000	3.000			28800.000	
	anchor, clamps etc	1	1000.000				1000.000	
	Total Quantity						69900.960 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						69900.960 kilogram	
	Say 69900.960 kilogram @ Rs 90.64 / kilogram						Rs 6335823.01	
14	16.70.2 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge. Made of G.I wire of dia 4 mm. PVC coated to achieve outer dia. not less than 5 mm in required colour and shade							
		2	1600.000		2.000		6400.000	
	Total Quantity						6400.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						6400.000 sqm	
	Say 6400.000 sqm @ Rs 868.66 / sqm						Rs 5559424.00	
15	13.52.1 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work							
	fencing post	2*1282	0.300		2.650		2038.380	
		6	1600.000	0.200			1920.000	
	Total Quantity						3958.380 sqm	
	Total Deducted Quantity						0.000 sqm	

SI No	Description	No	L	B	D	CF	Quantity	Remark
							Net Total Quantity	3958.380 sqm
							Say 3958.380 sqm @ Rs 178.95 / sqm	Rs 708352.10
16	10.26.1 Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.M.S. tube	1	2500.000				2500.000	
							Total Quantity	2500.000 kg
							Total Deducted Quantity	0.000 kg
							Net Total Quantity	2500.000 kg
							Say 2500.000 kg @ Rs 134.47 / kg	Rs 336175.00
4 APPENDIX E - CONSTRUCTION OF SKEW BRIDGE								
1	20.2.4 Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).500 mm dia piles	420					420.000	
							Total Quantity	420.000 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	420.000 metre
							Say 420.000 metre @ Rs 2567.87 / metre	Rs 1078505.40
2	5.9.1 Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete							
	pile cap	2	17.600		0.900		31.681	
							Total Quantity	31.681 sqm
							Total Deducted Quantity	0.000 sqm
							Net Total Quantity	31.681 sqm
							Say 31.681 sqm @ Rs 283.32 / sqm	Rs 8975.86
3	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							

	abutment	2	6.400	1.250	5.000		80.000	
	wing	4	2.000	0.500	5.000		20.000	
	Total Quantity						100.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						100.000 cum	
	Say 100.000 cum @ Rs 10438.58 / cum						Rs 1043858.00	
4	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1.5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	pile cap	2	6.800	2.000	0.900		24.480	
	Total Quantity						24.480 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						24.480 cum	
	Say 24.480 cum @ Rs 9079.38 / cum						Rs 222263.22	
5	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.							
	abutment	4	7.650		5.000		153.000	
	wing wall	8	3.200		5.000		128.000	
	Total Quantity						281.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						281.000 sqm	
	Say 281.000 sqm @ Rs 553.06 / sqm						Rs 155409.86	
6	5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15 ⁰ landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).							
	slab	1	7.000	5.300	0.700		25.970	
		2*3	7.000	0.075	0.150		0.473	
		2*8	0.900	0.075	0.150		0.162	
	Total Quantity						26.605 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						26.605 cum	
	Say 26.605 cum @ Rs 10796.48 / cum						Rs 287240.35	

7	5.9.3 Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform							
	slab	1	24.600		0.700		17.220	
		1	7.000	5.300			37.100	
		2*3	7.000	0.225			9.450	
		2*8	0.900	0.225			3.240	
	Total Quantity						67.010 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						67.010 sqm	
	Say 67.010 sqm @ Rs 616.90 / sqm						Rs 41338.47	
8	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	pile cap	1	24.480			120.0	2937.600	
	pile	1	29.673			120.0	3560.760	
	abutment	1	100.000			50.0	5000.000	
	slab	1	26.605			100.0	2660.500	
	Total Quantity						14158.860 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						14158.860 kilogram	
	Say 14158.860 kilogram @ Rs 82.68 / kilogram						Rs 1170654.54	
SI No	Description	No	L	B	D	CF	Quantity	Remarks
5 APPENDIX A1-Thodu Cleaning and Desilting- Removing hyacinth and organic,plastic materials from thodu and conveying and dumping of excavated earth								
1	od496/2018_2019/IA Removing water hyacinth weeds from river and surrounding area and conveying by boat and depositing the same conveniently away at places pointed out by departmental officers at site with all leads and lifts and other incidental charges such as hire and labour for country boats and necessary equipment required for the work							
		1	1000.000	10.000			10000.000	
	Total Quantity						10000.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						10000.000 sqm	
	Say 10000.000 sqm @ Rs 18.94 / sqm						Rs 189400.00	
2	od497/2018_2019/IA							

	Engaging man mazdoor for collecting, sorting and packing plastic waste from the thodu for disposing or recycling the same at suitable place									
		500						500.000		
		Total Quantity						500.000 each		
		Total Deducted Quantity						0.000 each		
		Net Total Quantity						500.000 each		
		Say 500.000 each @ Rs 552.87 / each						Rs 276435.00		
3	od498/2018_2019/IA Engaging man mazdoor for collecting, sorting and packing meat waste, poultry and fish materials from the thodu for disposing or recycling the same at suitable place									
		1					200.0	200.000		
		Total Quantity						200.000 each		
		Total Deducted Quantity						0.000 each		
		Net Total Quantity						200.000 each		
		Say 200.000 each @ Rs 552.87 / each						Rs 110574.00		
4	od501/2018_2019/IA Conveying the plastic waste removed from the bed of thodu for disposing or recycling the same at suitable place									
		1					250.0	250.000		
		Total Quantity						250.000 cum		
		Total Deducted Quantity						0.000 cum		
		Net Total Quantity						250.000 cum		
		Say 250.000 cum @ Rs 191.37 / cum						Rs 47842.50		
5	od503/2018_2019/IA Conveying desilted materials by mechanical transport (either by boat or by lorry) and dumping as per the direction of departmental officers at site. (The rate shall be for transporting & dumping 1m3 of desilted material for a distance of 1km, ie rate /m3/km)									
		1					90000.0	90000.000		
		Total Quantity						90000.000 cum per km		
		Total Deducted Quantity						0.000 cum per km		
		Net Total Quantity						90000.000 cum per km		
		Say 90000.000 cum per km @ Rs 60.62 / cum per km						Rs 5455800.00		
SI No	Description	No	L	B	D	CF	Quantity	Remark		
6 APPENDIXE1- CONSTRUCTION OF JETTY										

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1	5.33.1 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level							
	pile	8	0.300	0.300	10.000		7.200	
	pile shoe	8	0.300	0.300	.45/3		0.108	
						Total Quantity	7.308 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	7.308 cum	
						Say 7.308 cum @ Rs 9417.05 / cum	Rs 68819.80	
2	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts							
		96					96.000	
						Total Quantity	96.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	96.000 sqm	
						Say 96.000 sqm @ Rs 683.44 / sqm	Rs 65610.24	
3	od2899/2018_2019/IA Conveying pre cast RCC pile 30cmx30cmx10m to the site from contractors own casting yard including lifting,hoisting, aligning and placing in position							
		8					8.000	
						Total Quantity	8.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	8.000 each	
						Say 8.000 each @ Rs 1803.81 / each	Rs 14430.48	
4	od2800/2018_2019/IA Driving and installing precast reinforced cement concrete piles							
		8			7.000		56.000	
						Total Quantity	56.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	56.000 metre	

		Say 56.000 metre @ Rs 1350.82 / metre					Rs 75645.92	
5	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	jetty platform	1	6.000	3.000	0.300		5.400	
	hand rail	2*3*6	0.075	0.100			0.270	
	"	2*7	0.075	0.100	0.900		0.095	
						Total Quantity	5.765 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	5.765 cum	
						Say 5.765 cum @ Rs 9079.38 / cum	Rs 52342.63	
6	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	slab	1	6.000	3.000			18.000	
	hand rail	2*3	6.000	0.275			9.900	
	"	2*7		0.350	0.900		4.410	
						Total Quantity	32.310 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	32.310 sqm	
						Say 32.310 sqm @ Rs 616.90 / sqm	Rs 19932.04	
7	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	pile7.308m3@100kg/m3	7.308*100					730.800	
	s l a b 5.4m3@120kg/m3	5.4*100					540.000	
	hand rail	0.365*70					25.550	
						Total Quantity	1296.350 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	1296.350 kilogram	
						Say 1296.350 kilogram @ Rs 82.68 / kilogram	Rs 107182.22	
8	11.20.3 Chequerred precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement							

	slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand).Dark shade pigment using ordinary cement							
		1	6.000	3.000			18.000	
	Total Quantity						18.000	sqm
	Total Deducted Quantity						0.000	sqm
	Net Total Quantity						18.000	sqm
	Say 18.000 sqm @ Rs 1046.44 / sqm						Rs 18835.92	
SI No	Description	No	L	B	D	CF	Quantity	Remarks
7 APPENDIX D <i>Demolishing</i> <i>Removal of</i> <i>Foot path</i> <i>422799-25</i>								
1	15.2.1 Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	1				80.0	80.000	
	Total Quantity						80.000	cum
	Total Deducted Quantity						0.000	cum
	Net Total Quantity						80.000	cum
	Say 80.000 cum @ Rs 1456.49 / cum						Rs 116519.20	
2	15.3 Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material with in 50 metres lead as per direction of Engineer -in-Charge.	1				65.0	65.000	
	Total Quantity						65.000	cum
	Total Deducted Quantity						0.000	cum
	Net Total Quantity						65.000	cum
	Say 65.000 cum @ Rs 2124.81 / cum						Rs 138112.65	
3	15.60 Disposal of building rubbish/ malba/ similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved	1				145.0	145.000	
	Total Quantity						145.000	cum
	Total Deducted Quantity						0.000	cum
	Net Total Quantity						145.000	cum
	Say 145.000 cum @ Rs 176.10 / cum						Rs 25534.50	

4	5.33.1 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level								
	pile	8	0.300	0.300	10.000		7.200		
		4	0.300	0.300	8.500		3.060		
	shoe	12	0.300	0.300	.45/3		0.162		
		Total Quantity						10.422 cum	
		Total Deducted Quantity						0.000 cum	
		Net Total Quantity						10.422 cum	
		Say 10.422 cum @ Rs 9417.05 / cum						Rs 98144.50	
5	od2899/2018_2019/IA Conveying pre cast RCC pile 30cmx30cmx10m to the site from contractors own casting yard including lifting,holsting, aligning and placing in position								
		12					12.000		
		Total Quantity						12.000 each	
		Total Deducted Quantity						0.000 each	
		Net Total Quantity						12.000 each	
		Say 12.000 each @ Rs 1803.81 / each						Rs 21645.72	
6	od2800/2018_2019/IA Driving and installing precast reinforced cement concrete piles								
		12			6.000		72.000		
		Total Quantity						72.000 metre	
		Total Deducted Quantity						0.000 metre	
		Net Total Quantity						72.000 metre	
		Say 72.000 metre @ Rs 1350.82 / metre						Rs 97259.04	
7	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts								
		8	1.200		10.000		96.000		
		4	1.200		8.500		40.800		
		Total Quantity						136.800 sqm	

Total Deducted Quantity	0.000 sqm
Net Total Quantity	136.800 sqm
Say 136.800 sqm @ Rs 683.44 / sqm	Rs 93494.59

8	5.3 Reinforced cement concrete work in beams, suspended floors, roofs, having slope up to 15 ⁰ landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone III) : 3 graded stone aggregate 20 mm nominal size).
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slab	1	16.000	1.200	0.100	1.920
beam	2	16.000	0.200	0.800	5.121
"	6	0.800	0.200	0.400	0.385
footing	1	1.500	0.450	0.600	0.405
stair	2	2.200	1.200	0.150	0.792
beam	2	2.400	0.200	0.400	0.384
" landing lvl	4	5.700	0.200	0.400	1.825
"floor lvl	4	4.500	0.200	0.400	1.441
waist	4	3.600	1.200	0.150	2.592
step	4*12	1.200	.3*.15	0.500	1.296
	4*12	1.200	.3*.15	0.500	1.296

Total Quantity	17.457 cum
Total Deducted Quantity	0.000 cum
Net Total Quantity	17.457 cum
Say 17.457 cum @ Rs 10796.48 / cum	Rs 188474.15

9	5.9.3 Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform
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slab	1	16.000	1.200		19.200
"	1	34.400	0.100	0.800	2.752
	2	16.000	0.200		6.400
	4	16.000		0.800	51.200
"	6	0.800	0.200		0.961
	12	0.800		0.400	3.841
footing	2	1.500		0.600	1.800
	1	1.500	0.450	0.600	0.405
stair	2	2.200	1.200		5.280

	beam	2	2.400	0.200			0.960	
	"	4	2.400		0.400		3.840	
	"	4	5.700	0.200			4.561	
		8	5.700		0.400		18.241	
	"floor lvl	4	4.500	0.200			3.600	
		8	4.500		0.400		14.400	
	waist	4	3.600	1.200			17.280	
	step	4*12	1.200		0.150		8.640	
Total Quantity							163.361 sqm	
Total Deducted Quantity							0.000 sqm	
Net Total Quantity							163.361 sqm	
Say 163.361 sqm @ Rs 616.90 / sqm							Rs 100777.40	
10	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	pile	1	10.422	100.000			1042.200	
		1	17.457	80.000			1396.560	
Total Quantity							2438.760 kilogram	
Total Deducted Quantity							0.000 kilogram	
Net Total Quantity							2438.760 kilogram	
Say 2438.760 kilogram @ Rs 82.68 / kilogram							Rs 201636.68	
TOTAL Rs 97851244.00								
Rounded Total Rs 9,78,51,244								
Rupees Nine Crore Seventy Eight Lakh Fifty One Thousand Two Hundred and Forty Four Only								

(Cost Index Applied for this estimate is 46.08%)

Seetha
Sedra madhavan k p @ gmit.c

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