ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
	DETAILED ESTIMATE FOR THE CONSTRUCTION OF PILE & SLAB RETAINING WALL FOR 1800 Mtr.								
1	Earth work in ordinary soil for remooving the root zone of small trees of girth up to 30cm. Including rooting out and removal of rubbish(Sl.No.56) {not reusable}	781	$10m^3$						
	Data vide item No.5								
	Retaining wall (350 Mtr and Cross sectional area=0.95 m2)			1	1800	4	0.15	1080.00	
	Say							1080.00	84,348.00
2	Cement concrete 1:1.5:3 by using 20mm nominal size broken stones including all hire of formwork, watering, curing for pre cast piles, pre cast slabs casting at contractors own yard etc. complete.								
	A. Precast piles No. of piles (1200/1.80)+1 =668 add 5% extra for bend portions of bund 33	90	10dm3	1262	0.3	0.3	4.85	550.78	
	Total								
	Deduction for groove			1262	2	0.09	0.075	17.03	
	Net							533.7414	
	Say							533741.40	4,803,672.60

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
	Slab	86		1260	1.65	0.08	2.00	311.85	
	Say							311850.00	2,681,910.00
3	Reinforcement for R.C.C work , bent , tied and placed in position using TMT steel including cost and conveyance of materials labour charges etc. complete for pre cast slabs and piles , anchor block, anchor beams, tie beams etc. complete(SI.No.130a)	5702	Qtl.						
	Quantity of concrete for pile vide item No.2 A =310.71m3								
	Qty. of steel @150kg /m3							82616.36	
	Qty. of concrete for slab vide item No.2B = 173.25M3								
	Qty. of steel @ 75kg/m3							23388.75	
	Total							106005.11	
									6,044,412.00
4	Hire and labour charges for Ist class country	1170.00	Day						
	Say							90	105,300.00
5	Conveying R.C.C. Piles 300mm square 5.30m length from the place of casting to the site including hire charges of boats , coir ropes, crow bar etc. complete(observed data)	221	Each						
	Say			1262				1262	278,857.80

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
6	Conveying , lifting, handling. Hoisting, alining and fixing R.C.C.piles 300mm square, 5.30m length including hire charges of plants , wooden scanlings. Coir ropes, crow bar etc.complete(SI.No.708)	285	M						
				1262	5.30			6687.54	
	Say							6688	1,905,948.90
7	Driving down R.C.C. piles 300mm square through various strata from the bed level till refusal of monkey weighing not less than two tonnes wth the the aid of pile driving plant , winches , barge and accessories , wire rope etc. including labour, lubricant oil, pay of staff etc, complete.(SI.No.709)	431	M						
	Say			1262	3			3785.4	1,631,507.40
8	Chipping and removing the top of the R.C.C.piles to lines and levels carefully without damaging the remaining portion and removing the debris up to the distance of 150m stacking etc. complete.(SI.No.710)	34	10dm3						
				1262	0.3	0.3	0.3	34.07	

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
	Groove deduction			1262	0.30	0.09	0.15	5.11	
	Net							28.96	
	Say							28958.31	98,458.25
9	Conveying lifting handling hoisting aligning and fixing RCC slab inserting in between piles	1400	M2						
	Total number of slabs =700 x 2 = 1400			2520	1.65	1.00		4158.00	5,821,200.00
10	Earth work excavation in ordinary soil and depositing with all leads and lifts etc complete. including neat banking (Sl. No. 56)	781	$10m^3$						
	Digging for lay anchor beams			450	1.5	0.6	{0.6+1.2}/2	364.5	
	For anchor blocks			450	0.75	0.75	1.70	430.31	
								441.56	
	Say							442.00	34,520.20

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
11	Cement concrete 1:1.5:3 by using 20mm nominal size broken stones including all hire of formwork, watering, curing for etc complete for anchor beams , anchor bloks etc		10dm3						
	A- Anchor beams	136							
	Anchor beam on piles at 5.4m c/c			450	0.15	0.15	2.00	20.25	
	Say							20250	275,400.00
	B-Anchor blocks	80		450	0.75	0.75	0.5	126.56	
	Say							126562.5	1,012,500.00
	C-Tie beams for piles	93		1	1800.00	0.30	0.30	162.00	
	Say							162000.00	1,506,600.00
12	Reinforcement for R.C.C work , bent , tied and placed in position using TMT steel including cost and conveyance of materials labour charges etc. complete for pre cast slabs and piles , anchor block, anchor beams, tie beams etc. complete(SI.No.130a)	5702.00	Qtl						
	11A,11B,& 11C = 189.56m3								
	Qty. of steel @150kg /m3							46321.875	
	Say							463.22	2,641,273.31

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
13	Providing anti-corrosive treatment for reinforcement used in R.C.C works including removing dust and cleaning the surface of reinforcement by sand blasting applying one coat inhibiter soltn by preparing the soltn mixing portland cement in the ratio of 600cc inpodex to 1kg of portland cement etc complete including cost and conveyance of all materilas and machineris labour charges etc{observed data}	762	Qtl						
	Qty of steel for pile and slab							1060.05	
	Qty of steel for anchor blocks and tie beams							275.76	
	Say							1335.81	1,017,888.02
14	Cut earth blanket on top of earthen bund formed {SI No:56,67}	7527.00	10m3		1800.00	{2.6+2}/2	0.30	756.00	569,041.20
									30,512,837.69
	FORMATION OF BUND USING STEEL SHEET PILES								

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
15	Supplying and providing (Hire charge only)U shaped Hot Rolled Steel Sheet Pile of 5m length having width of 600mm, minimum thickness 10mm, minimum Sectional modulus 625 cm^3/m, minimum Moment of Inertia 9670 cm^4/m and minimum yield stress 355 N/mm^2 including cost and conveyance of all materials etc complete.All steel sheet piling shall be new and unspliced material throughout. Steel sheet piles shall be of a design that ensures continuous interlock throughout the entire length when in place. Steel sheet piling shall meet the requirements of ASTM A328, (Grade 50) or equivalent. Steel sheet piles required for the PROJECT shall be the type and weight shown on the DRAWINGS. Sheet piling shall be having a weathering finish. Additional length beyond those indicated on the DRAWINGS may be provided for trimming of tops of sheet piling. The interlocks between steel sheet pile sections shall be configured such that the average width of the annular space between all contact points of the interlocks shall be a maximum of 3mm.Steel sheet piles and interlocks shall not have excessive kinks, camber or twist that would prevent the pile from reasonably free sliding to grade. Handling holes shall be provided and there shall be two (2) standard 28.50mm diameter handling holes located 15 cm from one end. Supply shall be inclusive of conveyance of all materials to the department store or places at site indicated by the Engineer-in-charge, hire charges of all machineries, labour charges etc for unloading etc complete. (Sheet piles are used 20times)								

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
	Vadai Canal	19	5	25		100	237500		
	Commerial Canal	25	5	25		100	312500		
	East Junction Canal	4	5	25		100	50000		
	West Junction Canal	5	5	25		100	62500		
	Uppootti Canal	2	5	25		100	25000		
	Murinjapuzha Canal	2	5	20		100	20000		
	Kottaram Thodu Canal	4	5	20		100	40000		
					Total Quantity		747500	kg	
	Say		747.5	tonne	@	4961.25			3,708,534.38
16	Driving down steel sheet pile having width of 600 mm, interlocked together and penetrated through soil projecting sheet 2.0m or as directed by department engineers above bed level, including conveyance of all materials from department store/ previously driven spot to site, hire charges of all machineries, labour charges etc complete. All fabricated connections shall be made with the use of angles or bent plates, as necessary, and shall be adequately welded or connected with high strength bolts as accepted by ENGINEER. Piles shall not be subject to damage by impact bending stresses in transporting to and storing piles onsite. Store and handle piles in such a way that corrosion protection coating shall not be damaged. The holes for handling shall be plugged by welding a piece of steel over the hole prior to installing any riprap, backfill or drop structure cap. The plated hole shall be watertight. Steel sheet piling shall be driven to the depths shown on the DRAWINGS. Steel sheet piling shall be assembled before driving and then driven as a continuous wall, progressively in stages tokeep the piles aligned correctly and minimize the danger of breaking the interlock between the sheets. Steel sheet piling shall be driven to form a tight bulkhead. A driving head shall be used and any piling which is damaged in driving or which has broken interlocks between sections shall be pulled and replaced at CONTRACTOR’s expense.								
	As item no:12				Total Quantity		747.50		
	Say		747.50	tonne	@	13000.00			9,717,500.00

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
17	Pulling out steel sheet pile having width of 600 mm, interlocked together and penetrated through soil projecting sheet 2.0m or as directed by department engineers above bed level, including conveyance of all materials from department store/ previously driven spot to site, hire charges of all machineries, labour charges etc complete. All fabricated connections shall be made with the use of angles or bent plates, as necessary, and shall be adequately welded or connected with high strength bolts as accepted by ENGINEER. Piles shall not be subject to damage by impact bending stresses in transporting to and storing piles onsite. Store and handle piles in such a way that corrosion protection coating shall not be damaged. The holes for handling shall be plugged by welding a piece of steel over the hole prior to installing any riprap, backfill or drop structure cap. The plated hole shall be watertight. Steel sheet piling shall be pulled out continuously / progressively in stages to keep the piles intact and to minimize the danger of breaking the interlock between the sheets. A driving head shall be used and any piling which is damaged in pulling out or which has broken interlocks between sections shall be pulled and replaced at								
					Total Quantity		747.50		
	Say		747.50	tonne	@	8150.00			6,092,125.00
	REMOVAL OF WATER HYACINTH AND DESILTING OF CANALS								
18	Clearing and removing water hyacinth pista ,Thick Karuka and other underwater weeds and other submerged materials in or under water and other floating water weeds in the river including all cost and conveyance and labour charges etc complete								
	Vadai Canal	1	3650	20		0.5	36500		
	Commerial Canal	1	4890	20		0.4	39120		
	East Junction Canal	1	700	16		0.5	5600		
	West Junction Canal	1	830	16		0.5	6640		
	Uppootti Canal	1	300	20		0.5	3000		
	Murinjapuzha Canal	1	300	15		0.5	2250		
	Kottaram Thodu Canal	1	780	17		0.5	6630		
	Alappuzha -Ambalapuzha Canal	1	3500	10		0.3	10500		
	AS Canal	1	18000	10		0.2	36000		
		11450	32950		Total Quantity		146240		

ESTIMATE OF WORKS THAT COULD NOT BE INCORPORATED IN PRICE

Sl.No.	Description		Unit	Nos	Dimensions (m)			Quantity	Amount
					Length	Width	Depth		
	Say		146240		@	10.63			1,554,531.20
19	Desilting the canal by manually at an average depth of 0.75m without depositing the spoil on either bank of canal or near by palces and depositing the spoil away from canal of the risk of contractor including all lead and lifts hire and charges etc complete as per the direction of the departmental officers of site.								
	Vadai Canal	1	33918.8		0.8		27135.008		
	Commerial Canal	1	71691.9		0.8		57353.48		
	East Junction Canal	1	7563.18		0.8		6050.544		
	West Junction Canal	1	13347.8		0.8		10678.2		
	Uppootti Canal	1	7458.12		0.8		5966.496		
	Murinjapuzha Canal	1	3479.07		0.8		2783.256		
	Kottaram Thodu Canal	1	9731.01		0.8		7784.8072		
	Alappuzha -Ambalapuzha Canal	1	3500	10	0.85		29750		
	AS Canal	1	18000	10	0.8		144000	117751.7912	
	117751.7912				Total Quantity		291501.791		
	Say		291502		@	308.40			89,899,044.55
20	Conveyance of desilted material by Mechanical Transport including loading, unloading, levelling and neatly dressing the disposed material as directed by the department engineers.								
		117752	m^3km	19			**2237284**		
	say	2237284	m^3km @		Rs	23.56			52,711,591.38
						GRAND TOTAL			194,196,164.20