

Detailed Estimate

**KIIFB Project: TRAN 10: WRD025-06 - WSS to Ayyappankovil Panchayat -PART-II ,
Package III- Design and construction of check dam across Periyar river at
Thonithady**

(Dsr year: 2018)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
11 Working charges (Cost Index:41.53 %)								
1	od258306/2020_2021 Providing ring bund of width 1.50m and height 2.00m using earth filled cement bags, polythene sheets and bamboo including cutting of the Earth, filling, conveying and placing in position and dismantling & removing the same after completion of works properly as per the direction of the department officers including all cost of materials, labor charges etc complete.							
	Ring bund	2	120.000	1.500	2.000		720.000	The size of ring bund proposed may be changed according to the flow in the river during the execution of work
							Total Quantity	720.000 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	720.000 cum
							Say 720.000 cum @ Rs 4834.87 / cum	Rs 3481106.40
2	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, erection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070							
	Bailing out water with diesel engine pump set							

	Bailing out water with diesel engine pump set (Assume 3 Nos, 5HP pump set working 12 hours per day for 120 days)	1	10742.000				10742.000	
	Total Quantity						10742.000 Kwh	
	Total Deducted Quantity						0.000 Kwh	
	Net Total Quantity						10742.000 Kwh	
	Say 10742.000 Kwh @ Rs 38.57 / Kwh						Rs 414318.94	
3	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							
	for protection wall right side	1	70.000	1.000	2.000		140.000	
	for protection wall left side	1	30.000	1.000	2.000		60.000	
	for wing wall	2	16.800	1.000	1.600		53.761	
	for RR retaining wall	1	100.000	1.200	1.000		120.000	
	Total Quantity						373.761 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						373.761 cum	
	Say 373.761 cum @ Rs 309.95 / cum						Rs 115847.22	
4	2.9.3 Excavation work 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 soils as directed, within a lead of 50 m.Hard rock (blasting prohibited)							
	Site leveling for foundation of check dam							
	Site leveling for Check dam including boulders (average 0.50m height)	1	160.000	2.000	0.500		160.000	Length=180.00m- Kayam portion 20.00m= 160.00m

	For apron (average 0.30m height)	1	160.000	4.000	0.300		192.000	Length= 180.00m- Kayam portion 20.00m= 160.00m	
	Check dam foundation	1	160.000	1.800	0.300		86.400	Length= 180.00m- Kayam portion 20.00m= 160.00m	
	Total Quantity						438.400 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						438.400 cum		
	Say 438.400 cum @ Rs 1327.62 / cum							Rs 582028.61	
5	od97764/2020_2021 DOWEL BARS_ Supplying and providing MS dowel bars of size 16 mm dia , 200 cm long including drilling holes of 20 mm dia to a depth of 100 cm in rock and filling the gap with cement grout (0.100kg/hole) etc complete								
	For check dam (60cm c/c)	1200					1200.000		
	For wing wall	120					120.000		
	For protection wall	350					350.000		
	Total Quantity						1670.000 No		
	Total Deducted Quantity						0.000 No		
	Net Total Quantity						1670.000 No		
	Say 1670.000 No @ Rs 424.58 / No							Rs 709048.60	
6	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								
	Below Check dam foundation (Kayam portion, average 2.00m width and 3.50m depth)	1	20.000	2.000	3.500		140.000		
	Check dam foundation	1	180.000	1.800	0.300		97.200		
	Check dam wall	1	180.000	1.500	1.800		486.000		

	Wing wall foundation	2	16.600	1.600	0.300		15.936	
	Wing wall 1st lift	2	17.300	1.250	1.800		77.851	
	Wing wall 2nd lift	2	18.000	0.900	1.500		48.600	
	Foundation of protection wall left bank	1	30.000	1.000	0.300		9.000	
	Foundation of protection wall right bank	1	70.000	1.000	0.300		21.000	
	Protection wall left bank	1	30.000	0.500	2.000		30.000	
	Protection wall right bank	1	70.000	0.500	3.000		105.000	
	Apron	1	180.000	4.000	0.300		216.000	
	Deduct steel vent portion	18	0.700	1.200	0.500		-7.560	
						Total Quantity	1246.587 cum	
						Total Deducted Quantity	-7.560 cum	
						Net Total Quantity	1239.027 cum	
						Say 1239.027 cum @ Rs 9483.15 / cum	Rs 11749878.90	
7	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.							
	Check dam foundation (Kayam portion both side)	2	20.000		3.500		140.000	
	Check dam wall inside	1	180.000		1.800		324.000	
	Check dam wall out side	1	180.000		1.900		342.000	
	Wing walls outer	2	20.000		1.800		72.000	
	Wing wall inner	2	17.000		1.800		61.200	
	wing wall 2nd lift outer	2	20.000		1.500		60.000	
	wing wall 2nd lift inside	2	18.000		1.500		54.000	
	Protection wall left bank	2	30.000		2.000		120.000	

	Protection wall right bank	2	70.000		3.000		420.000		
	Side of apron	1	180.000		0.300		54.000		
	Belt of RR Masonry 1st	2	100.000		0.150		30.000		
	Belt of RR Masonry 2nd (Top)	2	100.000		0.100		20.000		
	Total Quantity						1697.200 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						1697.200 sqm		
	Say 1697.200 sqm @ Rs 748.62 / sqm						Rs 1270557.86		
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								
	Below check dam foundation (Kayam portion)	1	20.000	2.000	3.500	50.0	7000.000		
	Check dam Foundation	1	180.000	1.800	0.300	70.0	6804.000		
	Check dam wall	1	180.000	1.500	1.800	70.0	34020.000		
	Wing wall foundation	2	16.600	1.600	0.300	70.0	1115.520		
	Wing walls 1st lift	2	17.300	1.250	1.800	100.0	7785.001		
	Wing wall 2nd lift	2	18.000	0.900	1.500	100.0	4860.000		
	Protection wall left bank	1	30.000	0.500	2.000	100.0	3000.000		
	Protection wall right bank	1	70.000	0.500	3.000	100.0	10500.000		
	For apron	1	180.000	4.000	0.300	70.0	15120.000		
	For foundation of Protection wall	1	105.000	1.000	0.300	80.0	2520.000		
	For foundation of RR masonry	1	100.000	1.200	0.150	50.0	900.000		
	For RR masonry 1st belt	1	100.000	0.800	0.150	50.0	600.000		
	For RR masonry 2nd belt (Top)	1	100.000	0.600	0.100	50.0	300.000		

	Deduct steel vent portion	18	0.700	1.200	0.500	80.0	-604.800	
	Total Quantity						94524.521 kilogram	
	Total Deducted Quantity						-604.800 kilogram	
	Net Total Quantity						93919.721 kilogram	
	Say 93919.721 kilogram @ Rs 102.61 / kilogram						Rs 9637102.57	
9	50.2.25.1 Filling with contractor's own earth (excluding rock) in trenches, plinth, sides of foundations etc. 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							
		1	50.000	1.000	3.000		150.000	
	Total Quantity						150.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						150.000 cum	
	Say 150.000 cum @ Rs 548.85 / cum						Rs 82327.50	
10	10.2 Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.							
	Providing 16 mm thick steel shutters for venting							
	18x45 kg=810 kg	18				45.0	810.000	
	Total Quantity						810.000 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						810.000 kg	
	Say 810.000 kg @ Rs 125.04 / kg						Rs 101282.40	
11	18.73.5 Providing and laying Double Flanged (Screwed / Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS: 8329 :300 mm dia Ductile Iron Double Flanged							
	For Providing outlet arrangements	6	5.000				30.000	
	Total Quantity						30.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						30.000 metre	
	Say 30.000 metre @ Rs 6496.09 / metre						Rs 194882.70	
12	100.31.1.7 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :							

	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR						
		6					6.000
	Total Quantity						6.000 Nos
	Total Deducted Quantity						0.000 Nos
	Net Total Quantity						6.000 Nos
	Say 6.000 Nos @ Rs 2708.11 / Nos						Rs 16248.66
13	100.98.463 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 300mm.						
		6					6.000
	Total Quantity						6.000 No
	Total Deducted Quantity						0.000 No
	Net Total Quantity						6.000 No
	Say 6.000 No @ Rs 42595.55 / No						Rs 255573.30
14	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
	For retaining wall	1	100.000	0.800	2.000		160.000
	stone pitching(wing wall)	4	4.000	4.000	0.500	0.75	24.000
	Total Quantity						184.000 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						184.000 cum
	Say 184.000 cum @ Rs 7520.41 / cum						Rs 1383755.44
15	5.1.3 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:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	Foundation of RR Masonry	1	100.000	1.200	0.150		18.000
	1st belt of RR masonry	1	100.000	0.800	0.150		12.000
	2nd belt of RR Masonry (Top)	1	100.000	0.600	0.100		6.000
	Total Quantity						36.000 cum

		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					36.000 cum	
		Say 36.000 cum @ Rs 8964.72 / cum					Rs 322729.92	
16	od108488/2020_2021 Design of check dam of height 1.80 m and length 180 m across Periyar River near Thonithady including, design of wing wall, protection wall, retaining wall submission of 3 copies (hard copy and soft copy) of all drawings and obtaining approval from design wing, all charges/ fee etc. as per the direction of departmental officers							
	Design of check dam including submission of 3 sets hard copy and soft copy of design and drawing	1					1.000	
		Total Quantity					1.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 130000.00 / No					Rs 130000.00	
		Total					30446689.02	
		Centage @					0.0%	
		Centage Amount					0.00	
		Provision for GST payments (in %) @					12.0%	
		Amount reserved for GST payments					3653602.68	
		Total & Centage					34100291.70	
		Lumpsum for round off					99708.30	
		GRAND TOTAL Rs					34200000.00	
		Rounded Grand Total Rs 3,42,00,000						
		Rupees Three Crore Forty Two Lakh Only						