

Table 4.2.6 (14/14) CALCULATION TABLE FOR UNIT COST OF EACH PAYMENT ITEM IN PACKAGE-2

ID. No.	Working Name	Calculation Quantity	I L.S.									Remarks
Major Item	ID No.	Description	Unit	Quantity	PF/C	IF/C	L/C	PF/C	IF/C	L/C		
<b>Direct Cost</b>												
<b>Working Base Cost</b>												
<b>Demolition of Guard House</b>												
	S-B16-Bq-7	Put Down the Existing Roof Tile	m <sup>2</sup>	51.84	0	0	3,950	0	0	0	204,768	
	S-B16-Bq-10	Demolition of the Existing Wooden Roof Lath	m <sup>2</sup>	51.84	0	0	3,950	0	0	0	204,768	
	S-B16-Bq-14	Demolition of the Existing Wooden Truss of Building Less Than 3.5 m Height.	m <sup>3</sup>	4.50	0	0	29,360	0	0	0	132,120	
	S-B16-Bq-3	Demolition of Existing Thin Brick Wall Masonry.	m <sup>3</sup>	5.51	0	0	39,500	0	0	0	217,448	
	S-B16-Bq-5	Demolition of Existing Floor Tile	m <sup>2</sup>	21.24	0	0	1,980	0	0	0	42,055	
<b>Demolition of Mushola</b>												
	S-B16-Bq-7	Put Down the Existing Roof Tile	m <sup>2</sup>	86.40	0	0	3,950	0	0	0	341,280	
	S-B16-Bq-10	Demolition of the Existing Wooden Roof Lath	m <sup>2</sup>	86.40	0	0	3,950	0	0	0	341,280	
	S-B16-Bq-14	Demolition of the Existing Wooden Truss of Building Less Than 3.5 m Height.	m <sup>3</sup>	7.50	0	0	29,360	0	0	0	220,200	
	S-B16-Bq-3	Demolition of Existing Thin Brick Wall Masonry.	m <sup>3</sup>	9.18	0	0	39,500	0	0	0	362,413	
	S-B16-Bq-5	Demolition of Existing Floor Tile	m <sup>2</sup>	35.40	0	0	1,980	0	0	0	70,092	
<b>Demolition of Toilet</b>												
	S-B16-Bq-7	Put Down the Existing Roof Tile	m <sup>2</sup>	43.20	0	0	3,950	0	0	0	170,640	
	S-B16-Bq-10	Demolition of the Existing Wooden Roof Lath	m <sup>2</sup>	43.20	0	0	3,950	0	0	0	170,640	
	S-B16-Bq-14	Demolition of the Existing Wooden Truss of Building Less Than 3.5 m Height.	m <sup>3</sup>	3.75	0	0	29,360	0	0	0	110,100	
	S-B16-Bq-3	Demolition of Existing Thin Brick Wall Masonry.	m <sup>3</sup>	4.59	0	0	39,500	0	0	0	181,206	
	S-B16-Bq-5	Demolition of Existing Floor Tile	m <sup>2</sup>	17.70	0	0	1,980	0	0	0	35,046	
<b>Transportation/Removing Material</b>												
Equipment	A-2-I-80	Truck 11 ton	hourly	2.13	96,932	1,560	95,161	206,465	3,323		202,693	
<b>Accumulation and Loading to the Truck</b>												
Labour	L-2-1	Foreman	day	16.00	0	0	48,800	0	0	0	780,731	
	L-2-23	Common Labour	day	48.00	0	0	35,100	0	0	0	1,684,651	
<b>Working Base Cost</b>												
		Reconstruction of Mushola	% of Mushola Bldg Cost	60				3,986,643	6,378,340		65,615,119	
		Reconstruction of Guard House	% of Guard House	50				3,322,203	5,315,263		54,679,266	
		Reconstruction of Toilet	% of Mushola Bldg Cost	25				1,661,101	2,657,642		27,339,633	
<b>Indirect Cost</b>												
		Site Expense	%	15	0.5		0.5	13,247,786	0		13,247,786	
		Profit and Overhead Cost	%	10	0.9		0.1	18,281,945	0		3,031,327	
		Miscellaneous	L.S.					57	13		38	Round Up
<b>Total for</b>												
<b>Unit Cost for</b>												
		1 L.S.						40,706,200	14,354,600		168,385,300	
		1 L.S.						40,706,200	14,354,600		168,385,300	

Unit Weight	Weight (ton)
Roof Tile	45.00 Kg/m <sup>2</sup>
Wooden Roof Lath	9.45 Kg/m <sup>2</sup>
Wooden Truss	675 Kg/m <sup>3</sup>
Brick	1500 Kg/m <sup>3</sup>
Floor Tile	15 Kg/m <sup>2</sup>

\*Truck for Material Removing

unit	48 ton
1.5 km/mid /	10 km/hr +
48 ton /	11 ton/truck =
4.4 truck x	0.48 hours/truck =
	2.13 hours

\*Loading and unloading old material to the truck

Productivity of 1 common labour	5 kg/times	Time	1 minute/times
			60 times/hour
			300 kg/hour

In 1 day, considering time for rest and any loss time, working time is

Total weight that can be handled in 1 day =

Man power composition	3 ton
Foreman	1 day
Common Labour	3 day

Table 4.2.7 (1/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF ADMINISTRATION BUILDING

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				P/F/C	I/F/C	L/C	P/F/C	I/F/C	L/C	
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	249.06	0	0	16,000	0	0	3,984,960	3,984,960
S-B1-Bq-2	Earth Fill (Old)	m3	102.80	0	0	7,700	0	0	791,560	791,560
S-B1-Bq-3	Earth Fill (New)	m3	125.13	502	495	17,061	62,822	61,995	2,134,853	2,259,670
S-B1-Bq-4	Sand Fill	m3	29.10	0	1,620	41,800	0	47,142	1,216,380	1,263,522
S-B1-Bq-5	Sand Fill Under Foundation	m3	18.65	0	1,620	41,800	0	30,213	779,570	809,783
										Sub Total
										9,109,495
<b>II. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	35.88	0	2,900	96,000	0	104,052	3,444,480	3,548,532
S-B2-Bq-3	Stone Masonry 1:3:10	m3	68.64	0	9,800	166,600	0	672,672	11,435,424	12,108,096
S-B2-Bq-2	Brick block 1:3:10	m3	5.23	0	6,960	326,310	0	36,401	1,706,601	1,743,002
										Sub Total
										17,399,630
<b>III. REINFORCEMENT CONCRETE WORK</b>										
S-B4-Bq-1	Concrete K-225	m3	129.39	0	43,680	184,460	0	5,651,755	23,867,279	29,519,035
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	4,299.65	0	1,203	9,128	0	5,172,479	39,247,205	44,419,684
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg	17,119.70	0	1,286	9,320	0	22,015,934	159,555,604	181,571,538
S-B4-Bq-16	Reinforcement Concrete for Gutter	m2	1.21	100	197,375	2,410,900	121	238,824	2,917,189	3,156,134
S-B4-Bq-5	Supported Concrete Caster	m2	272.40	10	1,690	94,170	2,724	460,356	25,651,908	26,114,988
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	20.37	0	30,410	422,790	0	619,452	8,612,232	9,231,684
										Sub Total
										294,013,063
<b>IV. ROOFING WORK</b>										
S-B5-Bq-6	Steel Truss	Kg	3,277.29	6,310	0	5,699	20,679,700	0	18,677,276	39,356,976
S-B5-Bq-7	Steel Purlin	Kg	2,560.01	6,310	0	5,699	16,153,663	0	14,589,497	30,743,160
S-B5-Bq-5	Timber Rafter and Timber Batten	m2	699.96	0	420	25,890	0	293,983	18,121,964	18,415,948
S-B5-Bq-11	Gutter Timber Batten	m2	15.45	0	600	41,310	0	9,270	638,240	647,510
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	63.00	0	240	83,060	0	15,120	5,232,780	5,247,900
S-B5-Bq-13	Plywood Roof Cover	m2	699.96	0	2,090	28,020	0	1,462,916	19,612,879	21,075,796
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	699.96	0	1,050	15,160	0	734,958	10,611,394	11,346,352
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2	32.00	0	18,600	56,130	0	595,200	1,796,160	2,391,360
S-B5-Bq-3	Ceramic Roof Tile	m2	699.96	0	12,150	40,350	0	8,504,514	28,243,386	36,747,900
S-B5-Bq-4	Ceramic Ridge Tile	m	68.20	0	8,790	46,890	0	599,478	3,197,898	3,797,376
										Sub Total
										169,770,276
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	9.99	0	16,610	368,140	0	165,934	3,677,719	3,843,653
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	131.23	0	6,960	336,310	0	913,361	44,133,961	45,047,322
										Sub Total
										48,890,975
<b>VI. PLASTER WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	166.44	0	900	9,100	0	149,796	1,514,604	1,664,400
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	1,184.76	0	400	7,200	0	473,904	8,530,272	9,004,176
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	389.04	0	1,200	10,000	0	466,848	3,890,400	4,357,248
S-B3-Bq-9	Expose Plastering for Column H-800 & Base	m2	57.70	0	900	9,100	0	51,930	525,070	577,000
S-B6-Bq-8	Terracotta	m2	77.31	0	9,660	36,550	0	746,815	2,825,681	3,572,495
										Sub Total
										19,175,319
<b>VII. DOORS AND WINDOW WORKS</b>										
S-B8-Bq-4	Aluminium awakening	m	514.16	0	7,950	67,320	0	4,087,572	34,613,251	38,700,823
S-B8-Bq-18	Aluminium Window Frame	m	230.50	0	4,170	58,500	0	961,185	13,484,250	14,445,435
S-B8-Bq-6	Aluminium Door Frame	m	174.90	0	6,330	63,540	0	1,107,117	11,113,146	12,220,263
S-B8-Bq-7	Aluminium Sliding Window Frame	m	73.60	0	6,330	42,860	0	465,888	3,154,496	3,620,384
S-B8-Bq-15	Door Keys for Toilet Door	pieces	13.00	0	15,600	48,570	0	202,800	631,410	834,210
S-B8-Bq-19	Door Handle for Aluminium Door	pieces	24.00	0	18,720	55,850	0	449,280	1,340,400	1,789,680
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	16.00	0	15,600	48,570	0	249,600	777,120	1,026,720
S-B8-Bq-9	Espagnolette	pieces	10.00	0	10,920	37,650	0	109,200	376,500	485,700
S-B8-Bq-20	Door Hinge (125 mm) / Al Door	pieces	38.00	0	3,440	20,180	0	130,720	766,840	897,560
S-B8-Bq-10	Door Hinge (125 mm)	pieces	20.00	0	1,320	15,950	0	26,400	319,000	345,400
S-B8-Bq-12	Al Louvre	m2	25.71	0	10,200	150,040	0	262,242	3,857,528	4,119,770
S-B8-Bq-21	Shaft Door (for Steel Plate)	m2	0.95	0	57,260	259,840	0	54,397	246,848	301,245
S-B8-Bq-16	Double Teakwood Door (w/ Louvre)	m2	19.75	0	500	546,200	0	9,875	10,787,450	10,797,325
S-B8-Bq-13	Door Stopper	pieces	24.00	0	12,480	41,290	0	299,520	990,960	1,290,480
										Sub Total
										90,874,996
<b>VIII. GLAZING WORK</b>										
S-B9-Bq-8	Floot Glass H = 5 mm, (Natural Colour)	m2	112.32	0	14,900	36,850	0	1,673,568	4,138,992	5,812,560
S-B9-Bq-16	Sandblasting Glass of Lobby	m2	8.07	0	68,960	162,970	0	556,507	1,315,168	1,871,675
S-B9-Bq-11	Mirror for Lavatory 5 mm	m2	2.38	0	25,030	60,480	0	59,571	143,942	203,514
										Sub Total
										7,887,749
<b>IX. INTERIOR FINISHING</b>										
S-B10-Bq-5	Waterproof Gypsum Board 10 mm + Wood Frame	m2	601.12	0	420	100,470	0	252,470	60,394,526	60,646,997
S-B10-Bq-2	Wood Cornice	m	123.30	0	30	4,810	0	3,699	593,073	596,772
S-B10-Bq-6	Gypsum Cornice for Ceiling	m	448.80	0	30	15,810	0	13,464	7,095,528	7,108,992
S-B10-Bq-7	Lumbering Skirting for Wall Base	m2	99.27	0	480	57,720	0	47,650	5,729,864	5,777,514
S-B10-Bq-8	Lumbering Skirting for Ceiling	m2	151.68	0	330	56,170	0	50,054	8,519,866	8,569,920
S-B10-Bq-9	Wood Cornice for Lumbering Ceiling	m	123.30	0	30	4,810	0	3,699	593,073	596,772
S-B10-Bq-3	Stainless Steel Hand Rail	m	25.80	144,220	0	37,413	3,720,870	0	965,256	4,686,125
S-B10-Bq-10	Stainless Steel Railing + 10 mm Floot Glass	m	17.60	361,152	9,443	116,392	6,356,275	166,203	2,048,507	8,570,985
S-B10-Bq-11	Wood Profile for Lumbering Skirting	m	110.30	0	30	3,540	0	3,309	390,462	393,771
S-B10-Bq-12	Aluminium Border for Urinoir	m2	2.40	0	26,940	150,350	0	64,656	360,840	425,496
S-B10-Bq-13	Ventilation Hole 200 x 200	pieces	138.00	0	10	11,700	0	1,380	1,614,600	1,615,980
S-B10-Bq-14	Ventilation Hole D = 1000 + Steel Frame	pieces	3.00	105,100	15,000	212,500	315,300	45,000	637,500	997,800
										Sub Total
										99,987,124
<b>X. TILE WORK</b>										
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	549.75	0	9,660	36,550	0	5,310,585	20,093,363	25,403,948
S-B6-Bq-6	Stair Nosing Ceramic Tile	m	62.50	0	1,740	6,580	0	108,750	411,250	520,000
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Non-slip Texture)	m2	26.60	0	9,660	36,550	0	256,956	972,230	1,229,186
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	131.99	0	9,660	36,550	0	1,275,023	4,824,235	6,099,258
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Non-slip Texture)	m2	41.12	0	9,660	36,550	0	397,219	1,502,936	1,900,155
S-B9-Bq-7	Floot Glass H = 100 mm, Rayband (For Wall base)	m	235.88	0	2,950	8,280	0	695,846	1,953,086	2,648,932
										Sub Total
										37,801,479
<b>XI. SANITARY WORK</b>										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	64.00	0	0	36,700	0	0	2,348,800	2,348,800
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm (1"))	m	132.00	0	2,750	53,470	0	363,000	7,322,040	7,685,040
S-B7-Bq-4	PVC Gutter (1/2 D= 110 mm)	m	40.00	0	1,380	52,270	0	53,200	2,090,800	2,146,000
S-B7-Bq-16	Urinoir	pieces	8.00	0	100	402,100	0	800	3,216,800	3,217,600
S-B7-Bq-7	Hand Sink (Washbasin)	pieces	6.00	0	40	242,480	0	240	1,454,880	1,455,120
S-B7-Bq-17	Soap Case	pieces	6.00	0	40	71,480	0	240	428,880	429,120
S-B7-Bq-5	Closet	pieces	6.00	0	730	36,410	0	4,380	518,460	522,840
S-B7-Bq-6	Washbak	pieces	1.00	0	40	442,480	0	40	442,480	442,520
S-B7-Bq-11	Floor Drain	pieces	8.00	0	0	60,000	0	0	480,000	480,000
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470
S-B7-Bq-8	Water Stop Valve	pieces	1.00	0	0	67,530	0	0	67,530	67,530
S-B7-Bq-9	Bath Tub (Watertank)	pieces	6.00	0	200	140,170	0	1,200	841,020	842,220
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.45	100	197,375	2,410,900	45	88,819	1,084,905	1,173,769
										Sub Total
										22,149,029
<b>XII. ELECTRICAL WORK</b>										
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	23.00	0	0	128,060	0	0	2,945,380	2,945,380
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	52.00	0	0	233,060	0	0	12,119,120	12,119,120
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	9.00	0	0	108,060	0	0	972,540	972,540
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces	0.00	0	0	185,560	0	0	0	0
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	12.00	0	0	103,060	0	0	1,236,720	1,236,720
S-B11-Bq-26	Air Condition (1PK)	pieces	2.00	0	0	4,057,240	0	0	8,114,480	8,114,480
S-B11-Bq-7	Fuse	pieces	43.00	0	0	26,310	0	0	1,131,330	1,131,330
S-B11-Bq-8	Lighting Switch (Single)	pieces	7.00	0	0	10,440	0	0	73,080	73,080
S-B11-Bq-9	Lighting Switch (Double)	pieces	28.00	0	0	10,440	0	0	292,320	292,320

Table 4.2.7 (2/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF ADMINISTRATION BUILDING

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
S-B11-Bq-10	Outlet Socket Switch	pieces	41.00	0	0	11,440	0	0	469,040	469,040
S-B11-Bq-11	Outlet Socket Installation	pieces	41.00	0	0	32,420	0	0	1,329,220	1,329,220
S-B11-Bq-12	Lightning Protector	pieces	3.00	0	0	750,000	0	0	2,250,000	2,250,000
S-B11-Bq-13	Outlet Socket and Installation for AC	pieces	2.00	0	0	77,420	0	0	154,840	154,840
S-B11-Bq-14	Fuse Box	pieces	3.00	0	0	31,310	0	0	93,930	93,930
S-B11-Bq-27	New Installation from PLN (8800 VA)	pieces	1.00	0	0	1,300,000	0	0	1,300,000	1,300,000
<b>XIII. PAINTING WORK</b>										<b>Sub Total</b>
S-B9-Bq-1	Wall Painting	m2	1,826.33	0	1,430	8,570	0	2,611,652	15,651,648	18,263,300
S-B9-Bq-2	Wood Painting	m2	198.20	0	4,100	14,800	0	812,620	2,933,360	3,745,980
S-B9-Bq-17	Ceiling Polytar	m2	151.68	0	1,930	9,790	0	292,742	1,484,947	1,777,690
S-B9-Bq-6	Steel Protection Painting	m	853.14	0	80	7,690	0	68,251	6,560,647	6,628,898
S-B9-Bq-3	Ceiling Painting	m2	605.12	0	1,440	8,660	0	871,373	5,240,339	6,111,712
<b>XIV. FURNITURE</b>										<b>Sub Total</b>
S-B12-Bq-1	Meeting Room Table	unit	1.00	0	0	2,125,000	0	0	2,125,000	2,125,000
S-B12-Bq-2	Meeting Room Chair	unit	12.00	0	0	200,000	0	0	2,400,000	2,400,000
S-B12-Bq-3	Office Table	unit	50.00	0	0	500,000	0	0	25,000,000	25,000,000
S-B12-Bq-4	Filing Cabinet	unit	25.00	0	0	800,000	0	0	20,000,000	20,000,000
S-B12-Bq-5	Computer Table	unit	4.00	0	0	600,000	0	0	2,400,000	2,400,000
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333
S-B12-Bq-8	Portable Stove	unit	1.00	0	0	500,000	0	0	500,000	500,000
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-14	Front Office Table + 2 Chairs	unit	1.00	0	0	3,000,000	0	0	3,000,000	3,000,000
S-B12-Bq-10	Sofa	unit	4.00	0	0	833,333	0	0	3,333,333	3,333,333
<b>Total Cost</b>										<b>946,485,398</b>

Table 4.2.7 (3/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF GUEST HOUSE

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total	
				PF/C	IF/C	L/C	PF/C	IF/C	L/C		
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>											
S-B1-Bq-1	Earth Cut, 1 m depth	m3	77.68	0	0	16,000	0	0	1,242,880	1,242,880	
S-B1-Bq-2	Earth Fill (Old)	m3	35.03	0	0	7,700	0	0	269,731	269,731	
S-B1-Bq-3	Earth Fill (New)	m3	18.02	502	495	17,061	9,047	8,928	307,441	325,416	
S-B1-Bq-4	Sand Fill	m3	8.19	0	1,620	41,800	0	13,268	342,342	355,610	
S-B1-Bq-5	Sand Fill Under Foundation	m3	8.10	0	1,620	41,800	0	13,122	338,580	351,702	
										Sub Total	2,545,338
<b>II. FOUNDATION WORK</b>											
S-B2-Bq-1	Dry Stone Masonry	m3	15.31	0	2,900	96,000	0	44,399	1,469,760	1,514,159	
S-B2-Bq-3	Stone Masonry 1:3:10	m3	30.62	0	9,800	166,600	0	300,076	5,101,292	5,401,368	
S-B2-Bq-2	Brick block 1:3:10	m3	2.09	0	6,960	326,310	0	14,546	681,988	696,534	
										Sub Total	7,612,061
<b>III. REINFORCEMENT CONCRETE WORK</b>											
S-B4-Bq-1	Concrete K-225	m3	8.02	0	43,680	184,460	0	350,314	1,479,369	1,829,683	
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	1,364.89	0	1,203	9,128	0	1,641,963	12,458,716	14,100,679	
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg		0	1,285	9,320	0	0	0	0	
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	5.73	0	30,410	422,790	0	174,249	2,422,587	2,596,836	
										Sub Total	18,527,197
<b>IV. ROOFING WORK</b>											
S-B5-Bq-6	Steel Truss	Kg	1,396.80	6,310	0	5,699	8,813,808	0	7,960,363	16,774,171	
S-B5-Bq-7	Steel Purlin	Kg	1,161.01	6,310	0	5,699	7,325,973	0	6,616,596	13,942,569	
S-B5-Bq-5	Timber Raft and Timber Batten	m2	255.75	0	420	25,890	0	107,415	6,621,368	6,728,783	
S-B5-Bq-11	Gutter Timber Batten	m2	24.30	0	600	41,310	0	14,580	1,003,833	1,018,413	
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	15.75	0	240	83,060	0	3,780	1,308,195	1,311,975	
S-B5-Bq-13	Plywood Roof Cover	m2	255.75	0	2,090	28,020	0	534,518	7,166,115	7,700,633	
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	255.75	0	1,050	15,160	0	268,538	3,877,170	4,145,708	
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2	16.00	0	18,600	56,130	0	297,600	898,080	1,195,680	
S-B5-Bq-3	Ceramic Roof Tile	m2	255.75	0	12,150	40,350	0	3,107,363	10,319,513	13,426,875	
S-B5-Bq-4	Ceramic Ridge Tile	m	49.00	0	8,790	46,890	0	430,710	2,297,610	2,728,320	
										Sub Total	68,973,126
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>											
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	3.21	0	16,610	368,140	0	53,318	1,181,729	1,235,048	
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	15.41	0	6,960	336,310	0	107,254	5,182,537	5,289,791	
										Sub Total	6,524,838
<b>VI. PLASTER WORK</b>											
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	53.55	0	900	9,100	0	48,195	487,305	535,500	
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	256.85	0	400	7,200	0	102,740	1,849,320	1,952,060	
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	33.11	0	1,200	10,000	0	39,732	331,100	370,832	
S-B6-Bq-8	Terracotta	m2	37.60	0	9,660	36,550	0	363,216	1,374,280	1,737,496	
										Sub Total	4,595,888
<b>VII. DOORS AND WINDOW WORKS</b>											
S-B8-Bq-4	Aluminium window	m	133.10	0	7,950	67,320	0	1,058,145	8,960,292	10,018,437	
S-B8-Bq-18	Aluminium Window Frame	m	61.00	0	4,170	58,500	0	254,370	3,568,500	3,822,870	
S-B8-Bq-6	Aluminium Door Frame	m	11.40	0	6,330	63,540	0	72,162	724,356	796,518	
S-B8-Bq-7	Aluminium Sliding Window Frame	m	17.40	0	6,330	42,860	0	110,142	745,764	855,906	
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	1.00	0	15,600	48,570	0	15,600	48,570	64,170	
S-B8-Bq-9	Espresso/ette	pieces	1.00	0	10,920	37,650	0	10,920	37,650	48,570	
S-B8-Bq-10	Door Hinges (125 mm)	pieces	9.00	0	1,320	15,950	0	11,880	143,550	155,430	
S-B8-Bq-11	Windows Hinges (75 mm)	pieces		0	1,320	15,950	0	0	0	0	
S-B8-Bq-12	Al-Louvre	m2	6.84	0	10,200	150,040	0	69,768	1,026,274	1,096,042	
S-B8-Bq-13	Door Stopper	pieces	2.00	0	12,480	41,290	0	24,960	82,580	107,540	
										Sub Total	16,965,483
<b>VIII. GLAZING WORK</b>											
S-B9-Bq-8	Floot Glass H = 5 mm, (Natural Colour)	m2	18.46	0	14,900	36,850	0	275,054	680,251	955,305	
										Sub Total	955,305
<b>IX. INTERIOR FINISHING</b>											
S-B10-Bq-21	Waterproof Gypsum Board 12 mm + Wood Frame	m2	62.46	0	420	103,580	0	26,233	6,469,607	6,495,840	
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	54.60	0	2,220	85,170	0	121,212	4,650,282	4,771,494	
S-B10-Bq-2	Wood Cornice	m	28.70	0	30	4,810	0	861	138,047	138,908	
S-B10-Bq-6	Gypsum Cornice for Ceiling	m	73.60	0	30	15,810	0	2,208	1,163,616	1,165,824	
S-B10-Bq-8	Lumbersewing Skirting for Ceiling	m2	21.90	0	330	56,170	0	7,227	1,230,123	1,237,350	
										Sub Total	7,313,576
<b>X. TILE WORK</b>											
S-B6-Bq-3	Ceramic Floor Tile, 300 x 300 mm	m2	63.50	0	9,660	36,550	0	613,410	2,320,925	2,934,335	
S-B6-Bq-4	Ceramic Floor Tile, 300 x 300 mm, (Non-slip Texture)	m2	27.25	0	9,660	36,550	0	263,235	995,988	1,259,223	
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	35.62	0	9,660	36,550	0	344,089	1,301,911	1,646,000	
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Non-slip Texture)	m2	6.40	0	9,660	36,550	0	61,824	233,920	295,744	
S-B9-Bq-7	Floot Glass H = 100 mm, Rayband (For Wall base)	m	39.00	0	2,950	8,280	0	115,050	322,920	437,970	
										Sub Total	6,573,272
<b>XI. SANITARY WORK</b>											
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	35.00	0	0	36,700	0	0	1,284,500	1,284,500	
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm (1"))	m	8.00	0	2,750	55,470	0	22,000	443,760	465,760	
S-B7-Bq-5	Closet	pieces	2.00	0	730	86,410	0	1,460	172,820	174,280	
S-B7-Bq-6	Washbak	pieces	1.00	0	40	442,480	0	40	442,480	442,520	
S-B7-Bq-11	Floor Drain	pieces	2.00	0	0	60,000	0	0	120,000	120,000	
S-B7-Bq-3	Septic tank	unit	2.00	0	49,390	1,289,080	0	98,780	2,578,160	2,676,940	
S-B7-Bq-8	Water Stop Valve	pieces	5.00	0	0	67,530	0	0	337,650	337,650	
S-B7-Bq-9	Bath Tub (Waterbath)	pieces	2.00	0	200	140,170	0	400	280,340	280,740	
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.36	100	197,375	2,410,900	36	71,055	867,924	939,015	
										Sub Total	6,721,405
<b>XII. ELECTRICAL WORK</b>											
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	8.00	0	0	128,060	0	0	1,024,480	1,024,480	
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	14.00	0	0	233,060	0	0	3,262,840	3,262,840	
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces		0	0	108,060	0	0	0	0	
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces		0	0	185,560	0	0	0	0	
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	6.00	0	0	103,060	0	0	618,360	618,360	
S-B11-Bq-26	Air Condition (1PK)	pieces		0	0	4,057,240	0	0	0	0	
S-B11-Bq-7	Fuse	pieces	3.00	0	0	26,310	0	0	78,930	78,930	
S-B11-Bq-8	Lighting Switch (Single)	pieces	2.00	0	0	10,440	0	0	20,880	20,880	
S-B11-Bq-9	Lighting Switch (Double)	pieces	5.00	0	0	10,440	0	0	52,200	52,200	
S-B11-Bq-10	Outlet Socket Switch	pieces	7.00	0	0	11,440	0	0	80,080	80,080	
S-B11-Bq-11	Outlet Socket Installation	pieces	7.00	0	0	32,420	0	0	226,940	226,940	
S-B11-Bq-12	Lightning Protector	pieces		0	0	750,000	0	0	0	0	
S-B11-Bq-13	Outlet Socket and Installation for AC	pieces		0	0	77,420	0	0	0	0	
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310	

Table 4.2.7 (4/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

**CONSTRUCTION COST OF GUEST HOUSE**

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total	
				PF/C	IF/C	L/C	PF/C	IF/C	L/C		
S-B11-Bq-15	New Installation from PLN for 3500 VA	pieces	1.00	0	0	1,300,000	0	0	1,300,000	1,300,000	
										Sub Total	6,696,020
<b>XIII. PAINTING WORK</b>											
S-B9-Bq-1	Wall Painting	m2	310.41	0	1,430	8,570	0	443,886	2,660,214	3,104,100	
S-B9-Bq-2	Wood Painting	m2	51.90	0	4,100	14,800	0	212,790	768,120	980,910	
S-B9-Bq-15	Wood polystyrene	m2	34.90	0	200	20,800	0	6,980	725,920	732,900	
S-B9-Bq-6	Steel Protection Painting	m	367.90	0	80	7,690	0	29,432	2,829,151	2,858,583	
S-B9-Bq-3	Ceiling Painting	m2	62.46	0	1,440	8,660	0	89,942	540,904	630,846	
										Sub Total	8,307,339
<b>XIV. FURNITURE</b>											
S-B12-Bq-15	Garden Chair	unit	4.00	0	0	200,000	0	0	800,000	800,000	
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333	
S-B12-Bq-13	Bed Room Set	unit	2.00	0	0	1,500,000	0	0	3,000,000	3,000,000	
S-B12-Bq-8	Portable Stove	unit	1.00	0	0	500,000	0	0	500,000	500,000	
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000	
S-B12-Bq-10	Sofa	unit	1.00	0	0	833,333	0	0	833,333	833,333	
										Sub Total	6,791,667
										Total Cost	169,182,515

Table 4.2.7 (5/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF STAFF HOUSE 1

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total	
				PF/C	IF/C	L/C	PF/C	IF/C	L/C		
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>											
S-B1-Bq-1	Earth Cut, 1 m depth	m3	51.30	0	0	16,000	0	0	820,800	820,800	
S-B1-Bq-2	Earth Fill (Old)	m3	23.19	0	0	7,700	0	0	178,563	178,563	
S-B1-Bq-3	Earth Fill (New)	m3	27.30	502	495	17,061	13,706	13,526	465,767	492,599	
S-B1-Bq-4	Sand Fill	m3	5.46	0	1,620	41,800	0	8,845	228,228	237,073	
S-B1-Bq-5	Sand Fill Under Foundation	m3	5.20	0	1,620	41,800	0	8,424	217,360	225,784	
										Sub Total	1,955,219
<b>II. FOUNDATION WORK</b>											
S-B2-Bq-1	Dry Stone Masonry	m3	10.23	0	2,900	96,000	0	29,667	982,080	1,011,747	
S-B2-Bq-3	Stone Masonry 1:3:10	m3	20.46	0	9,800	166,600	0	200,508	3,408,636	3,609,144	
S-B2-Bq-2	Brick block 1:3:10	m3	1.40	0	6,960	326,310	0	9,744	456,834	466,578	
										Sub Total	5,087,469
<b>III. REINFORCEMENT CONCRETE WORK</b>											
S-B4-Bq-1	Concrete K-225	m3	4.56	0	43,680	184,460	0	199,181	841,138	1,040,318	
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	894.23	0	1,203	9,128	0	1,075,759	8,162,531	9,238,290	
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg		0	1,286	9,320	0	0	0	0	
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	3.82	0	30,410	422,790	0	116,166	1,615,058	1,731,224	
										Sub Total	12,009,833
<b>IV. ROOFING WORK</b>											
S-B5-Bq-6	Steel Truss	Kg	618.60	6,310	0	5,699	3,903,366	0	3,525,401	7,428,767	
S-B5-Bq-7	Steel Purlin	Kg	418.73	6,310	0	5,699	2,642,186	0	2,386,342	5,028,529	
S-B5-Bq-5	Timber Rafter and Timber Batten	m2	148.50	0	420	25,890	0	62,370	3,844,665	3,907,035	
S-B5-Bq-11	Gutter Timber Batten	m2	22.80	0	600	41,310	0	13,680	941,868	955,548	
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	12.60	0	240	83,060	0	3,024	1,046,556	1,049,580	
S-B5-Bq-13	Plywood Roof Cover	m2	148.50	0	2,090	28,020	0	310,365	4,160,970	4,471,335	
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	148.50	0	1,050	15,160	0	155,925	2,251,260	2,407,185	
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2	13.00	0	18,600	56,130	0	241,800	729,690	971,490	
S-B5-Bq-3	Ceramic Roof Tile	m2	148.50	0	12,150	40,350	0	1,804,275	5,991,975	7,796,250	
S-B5-Bq-4	Ceramic Ridge Tile	m	50.00	0	8,790	46,890	0	439,500	2,344,500	2,784,000	
										Sub Total	36,799,719
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>											
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	2.66	0	16,610	368,140	0	44,183	979,252	1,023,435	
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	15.23	0	6,960	336,310	0	106,001	5,122,001	5,228,002	
										Sub Total	6,251,437
<b>VI. PLASTER WORK</b>											
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	47.16	0	900	9,100	0	42,444	429,156	471,600	
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	253.79	0	400	7,200	0	101,516	1,827,288	1,928,804	
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	16.17	0	1,200	10,000	0	19,404	161,700	181,104	
S-B6-Bq-8	Terracotta	m2	25.40	0	9,660	36,550	0	245,364	928,370	1,173,734	
										Sub Total	3,755,242
<b>VII. DOORS AND WINDOW WORKS</b>											
S-B8-Bq-4	Aluminium awning	m	52.85	0	7,950	67,320	0	420,158	3,557,862	3,978,020	
S-B8-Bq-24	Teakwood Panel	m2	8.21	0	300	455,700	0	2,463	3,741,297	3,743,760	
S-B8-Bq-6	Aluminium Door Frame	m	19.50	0	6,330	63,540	0	123,435	1,239,030	1,362,465	
S-B8-Bq-7	Aluminium Sliding-Window Frame	m	12.20	0	6,330	42,860	0	77,226	522,892	600,118	
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	3.00	0	15,600	48,570	0	46,800	145,710	192,510	
S-B8-Bq-9	Espressolette	pieces		0	10,920	37,650	0	0	0	0	
S-B8-Bq-10	Door Hinges (125 mm)	pieces	9.00	0	1,320	15,950	0	11,880	143,550	155,430	
S-B8-Bq-11	Windows Hinges (75 mm)	pieces	1.00	0	1,320	15,950	0	1,320	15,950	17,270	
S-B8-Bq-12	Al-Louvre	m2		0	10,200	150,040	0	0	0	0	
S-B8-Bq-13	Door Stopper	pieces		0	12,480	41,290	0	0	0	0	
										Sub Total	10,049,573
<b>VIII. GLAZING WORK</b>											
S-B9-Bq-8	Float Glass H = 5 mm, (Natural Colour)	m2	8.69	0	14,900	36,830	0	129,481	320,227	449,708	
										Sub Total	449,708
<b>IX. INTERIOR FINISHING</b>											
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	81.30	0	2,220	85,170	0	180,486	6,924,321	7,104,807	
S-B10-Bq-2	Wood Cornice	m	131.10	0	30	4,810	0	3,933	630,591	634,524	
S-B10-Bq-3	Stainless Steel Hand Rail	m		144,220	0	37,413	0	0	0	0	
S-B10-Bq-4	Stainless Steel Railing	m		361,152	0	93,711	0	0	0	0	
										Sub Total	7,739,331
<b>X. TILE WORK</b>											
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	42.75	0	9,660	36,550	0	412,965	1,362,513	1,975,478	
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Nonslip Texture)	m2	15.00	0	9,660	36,550	0	144,900	548,250	693,150	
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	15.20	0	9,660	36,550	0	147,798	559,215	707,013	
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Nonslip Texture)	m2	1.54	0	9,660	36,550	0	14,876	56,287	71,163	
S-B9-Bq-7	Float Glass H = 100 mm, Rayband (For Wall base)	m	43.70	0	2,950	8,280	0	128,915	361,836	490,751	
										Sub Total	3,937,555
<b>XII. SANITARY WORK</b>											
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	2.50	0	0	36,700	0	0	91,750	91,750	
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm)	m	11.00	0	2,750	55,470	0	30,250	610,170	640,420	
S-B7-Bq-5	Close	pieces	1.00	0	730	86,410	0	730	86,410	87,140	
S-B7-Bq-6	Washbasin	pieces	1.00	0	40	442,480	0	40	442,480	442,520	
S-B7-Bq-11	Floor Drain	pieces	1.00	0	0	60,000	0	0	60,000	60,000	
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470	
S-B7-Bq-8	Water Stop Valve	pieces	4.00	0	0	67,530	0	0	270,120	270,120	
S-B7-Bq-9	Bath Tub (Watertank)	pieces	1.00	0	200	140,170	0	200	140,170	140,370	
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.12	100	197,375	2,410,900	12	23,685	289,308	313,005	
										Sub Total	3,383,795
<b>XIII. ELECTRICAL WORK</b>											
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	3.00	0	0	128,060	0	0	384,180	384,180	
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	4.00	0	0	233,060	0	0	932,240	932,240	
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	1.00	0	0	108,060	0	0	108,060	108,060	
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces	4.00	0	0	185,560	0	0	742,240	742,240	
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	1.00	0	0	103,060	0	0	103,060	103,060	
S-B11-Bq-7	Fuse	pieces	2.00	0	0	26,310	0	0	52,620	52,620	
S-B11-Bq-8	Lighting Switch (Single)	pieces	2.00	0	0	10,440	0	0	20,880	20,880	
S-B11-Bq-9	Lighting Switch (Double)	pieces	4.00	0	0	10,440	0	0	41,760	41,760	
S-B11-Bq-10	Outlet Socket Switch	pieces	5.00	0	0	11,440	0	0	57,200	57,200	
S-B11-Bq-11	Outlet Socket Installation	pieces	5.00	0	0	32,420	0	0	162,100	162,100	
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310	
S-B11-Bq-18	New Installation from PLN for 450 VA	pieces	1.00	0	0	108,000	0	0	108,000	108,000	
										Sub Total	2,743,650
<b>XIV. PAINTING WORK</b>											
S-B9-Bq-1	Wall Painting	m2	81.30	0	1,430	8,570	0	116,259	696,741	813,000	
S-B9-Bq-2	Wood Painting	m2	42.00	0	4,100	14,800	0	172,200	621,600	793,800	
S-B9-Bq-15	Wood polyur	m2	17.85	0	200	20,800	0	3,570	371,280	374,850	

Table 4.2.7 (6/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

CONSTRUCTION COST OF STAFF HOUSE 1

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
S-B9-Bq-6	Steel Protection Painting	m	157.08	0	90	7,690	0	12,566	1,207,945	1,220,512
S-B9-Bq-3	Ceiling Painting	m2	81.30	0	1,440	8,660	0	117,072	704,058	821,130
<b>XV. FURNITURE</b>										<b>Sub Total</b>
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333
S-B12-Bq-16	Double Bed Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-8	Portable Stove	unit	1.00	0	0	500,000	0	0	500,000	500,000
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-10	Sofa	unit	2.00	0	0	833,333	0	0	1,666,667	1,666,667
										<b>Sub Total</b>
										<b>4,825,000</b>
										<b>Total Cost</b>
										<b>183,818,821</b>

Table 4.2.7 (7/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF STAFF HOUSE 2

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PR/C	IF/C	L/C	PR/C	IF/C	L/C	
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	51.30	0	0	16,000	0	0	820,800	820,800
S-B1-Bq-2	Earth Fill (Old)	m3	23.19	0	0	7,700	0	0	178,563	178,563
S-B1-Bq-3	Earth Fill (New)	m3	27.30	502	495	17,061	13,706	13,526	465,767	492,999
S-B1-Bq-4	Sand Fill	m3	5.46	0	1,620	41,800	0	8,845	228,228	237,073
S-B1-Bq-5	Sand Fill Under Foundation	m3	5.20	0	1,620	41,800	0	8,424	217,360	225,784
									Sub Total	1,955,219
<b>II. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	10.23	0	2,900	96,000	0	29,667	982,080	1,011,747
S-B2-Bq-3	Stone Masonry 1:3:10	m3	20.46	0	9,800	166,600	0	200,508	3,408,636	3,609,144
S-B2-Bq-2	Brick block 1:3:10	m3	1.40	0	6,960	326,310	0	9,744	456,834	466,578
									Sub Total	5,087,469
<b>III. REINFORCEMENT CONCRETE WORK</b>										
S-B4-Bq-1	Concrete K-225	m3	4.56	0	43,680	184,460	0	199,181	841,138	1,040,318
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	894.23	0	1,203	9,128	0	1,075,759	8,162,531	9,238,290
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg		0	1,286	9,320	0	0	0	0
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	3.82	0	30,410	422,790	0	116,166	1,615,058	1,731,224
									Sub Total	12,009,833
<b>IV. ROOFING WORK</b>										
S-B5-Bq-6	Steel Truss	Kg	618.60	6,310	0	5,699	3,903,366	0	3,525,401	7,428,767
S-B5-Bq-7	Steel Purlin	Kg	418.73	6,310	0	5,699	2,642,186	0	2,386,342	5,028,529
S-B5-Bq-5	Timber Rafters and Timber Batten	m2	148.50	0	420	25,890	0	62,370	3,844,665	3,907,035
S-B5-Bq-11	Gutter Timber Batten	m2	22.80	0	600	41,310	0	13,680	941,868	955,548
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	12.60	0	240	83,060	0	3,024	1,046,556	1,049,580
S-B5-Bq-13	Plywood Roof Cover	m2	148.50	0	2,090	28,020	0	310,365	4,160,970	4,471,335
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	148.50	0	1,050	15,160	0	155,925	2,251,260	2,407,185
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2	13.00	0	18,600	56,130	0	241,800	729,690	971,490
S-B5-Bq-3	Ceramic Roof Tile	m2	148.50	0	12,150	40,350	0	1,804,275	5,991,975	7,796,250
S-B5-Bq-4	Ceramic Ridge Tile	m	50.00	0	8,790	46,890	0	439,500	2,344,500	2,784,000
									Sub Total	36,799,719
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	2.66	0	16,610	368,140	0	44,183	979,252	1,023,435
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	15.23	0	6,960	336,310	0	106,001	5,122,001	5,228,002
									Sub Total	6,251,437
<b>VI. PLASTER WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	47.16	0	900	9,100	0	42,444	429,156	471,600
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	253.79	0	400	7,200	0	101,516	1,827,288	1,928,804
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	16.17	0	1,200	10,000	0	19,404	161,700	181,104
S-B6-Bq-8	Terra-cotta	m2	25.40	0	9,660	36,550	0	245,364	928,370	1,173,734
									Sub Total	3,755,242
<b>VII. DOORS AND WINDOW WORKS</b>										
S-B8-Bq-4	Aluminium window	m	52.85	0	7,950	67,320	0	420,158	3,557,862	3,978,020
S-B8-Bq-24	Teakwood Panel	m2	8.21	0	300	455,700	0	2,463	3,741,297	3,743,760
S-B8-Bq-6	Aluminium Door Frame	m	19.50	0	6,330	63,540	0	123,435	1,239,030	1,362,465
S-B8-Bq-7	Aluminium Sliding Window Frame	m	12.20	0	6,330	42,860	0	77,226	522,892	600,118
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	3.00	0	15,600	48,570	0	46,800	145,710	192,510
S-B8-Bq-9	Espagnolette	pieces		0	10,920	37,650	0	0	0	0
S-B8-Bq-10	Door Hinges (125 mm)	pieces	9.00	0	1,320	15,950	0	11,880	143,550	155,430
S-B8-Bq-11	Windows Hinges (75 mm)	pieces	1.00	0	1,320	15,950	0	1,320	15,950	17,270
S-B8-Bq-12	Al-Louvre	m2		0	10,200	150,040	0	0	0	0
S-B8-Bq-13	Door Stopper	pieces		0	12,480	41,290	0	0	0	0
									Sub Total	10,049,573
<b>VIII. GLAZING WORK</b>										
S-B9-Bq-8	Floot Glass H = 5 mm, (Natural Colour)	m2	8.69	0	14,900	36,850	0	129,481	320,227	449,708
									Sub Total	449,708
<b>IX. INTERIOR FINISHING</b>										
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	81.30	0	2,220	85,170	0	180,486	6,924,321	7,104,807
S-B10-Bq-2	Wood Cornice	m	131.10	0	30	4,810	0	3,933	630,591	634,524
S-B10-Bq-3	Stainless Steel Hand Rail	m		144,220	0	37,413	0	0	0	0
S-B10-Bq-4	Stainless Steel Railing	m		361,152	0	93,711	0	0	0	0
									Sub Total	7,739,331
<b>X. TILE WORK</b>										
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	42.75	0	9,660	36,550	0	412,965	1,562,513	1,975,478
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Nonslip Texture)	m2	15.00	0	9,660	36,550	0	144,900	548,250	693,150
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	15.30	0	9,660	36,550	0	147,798	559,215	707,013
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Nonslip Texture)	m2	1.54	0	9,660	36,550	0	14,876	56,287	71,163
S-B9-Bq-7	Floot Glass H = 100 mm, Rayband (For Wall base)	m	43.70	0	2,950	8,280	0	128,915	361,836	490,751
									Sub Total	3,937,555
<b>XI. SANITARE WORK</b>										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	2.50	0	0	36,700	0	0	91,750	91,750
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm)	m	11.00	0	2,750	55,470	0	30,250	610,170	640,420
S-B7-Bq-5	Closet	pieces	1.00	0	730	86,410	0	730	86,410	87,140
S-B7-Bq-6	Washbak	pieces	1.00	0	40	442,480	0	40	442,480	442,520
S-B7-Bq-11	Floor Drain	pieces	1.00	0	0	60,000	0	0	60,000	60,000
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470
S-B7-Bq-8	Water Stop Valve	pieces	4.00	0	0	67,530	0	0	270,120	270,120
S-B7-Bq-9	Bath Tub (Watermark)	pieces	1.00	0	200	140,170	0	200	140,170	140,370
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.12	100	197,375	2,410,900	12	23,685	289,308	313,005
									Sub Total	3,383,795
<b>XII. ELECTRICAL WORK</b>										
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	3.00	0	0	128,060	0	0	384,180	384,180
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	4.00	0	0	233,060	0	0	932,240	932,240
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	1.00	0	0	108,060	0	0	108,060	108,060
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces	4.00	0	0	185,560	0	0	742,240	742,240
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	1.00	0	0	103,060	0	0	103,060	103,060
S-B11-Bq-7	Fuse	pieces	2.00	0	0	26,310	0	0	52,620	52,620
S-B11-Bq-8	Lighting Switch (Single)	pieces	2.00	0	0	10,440	0	0	20,880	20,880
S-B11-Bq-9	Lighting Switch (Double)	pieces	4.00	0	0	10,440	0	0	41,760	41,760
S-B11-Bq-10	Outlet Socket Switch	pieces	5.00	0	0	11,440	0	0	57,200	57,200
S-B11-Bq-11	Outlet Socket Installation	pieces	5.00	0	0	32,420	0	0	162,100	162,100
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310
S-B11-Bq-18	New Installation from PLN for 450 VA	pieces	1.00	0	0	108,000	0	0	108,000	108,000
									Sub Total	2,743,650
<b>XIII. PAINTING WORK</b>										
S-B9-Bq-1	Wall Painting	m2	81.30	0	1,430	8,570	0	116,259	696,741	813,000
S-B9-Bq-2	Wood Painting	m2	42.00	0	4,100	14,800	0	172,200	621,600	793,800
S-B9-Bq-15	Wood polysty	m2	17.85	0	200	20,800	0	3,570	371,280	374,850



Table 4.2.7 (8/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

CONSTRUCTION COST OF STAFF HOUSE 2

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PP/C	IF/C	I/C	PP/C	IF/C	I/C	
S-B9-Bq-6	Steel Protection Painting	m	157.08	0	80	7,690	0	12,566	1,207,945	1,220,512
S-B9-Bq-3	Ceiling Painting	m2	81.30	0	1,440	2,660	0	117,072	704,058	821,130
Sub Total										4,023,292
<b>XV. FURNITURE</b>										
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333
S-B12-Bq-16	Double Bed Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-8	Portable Store	unit	1.00	0	0	500,000	0	0	500,000	500,000
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-10	Sofa	unit	2.00	0	0	833,333	0	0	1,666,667	1,666,667
Sub Total										4,825,000
Total Cost										103,010,821

Table 4.2.7 (9/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF STAFF HOUSE 3

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	51.30	0	0	16,000	0	0	820,800	820,800
S-B1-Bq-2	Earth Fill (Old)	m3	23.19	0	0	7,700	0	0	178,563	178,563
S-B1-Bq-3	Earth Fill (New)	m3	27.30	502	495	17,061	13,706	13,526	465,767	492,999
S-B1-Bq-4	Sand Fill	m3	5.46	0	1,620	41,800	0	8,845	228,228	237,073
S-B1-Bq-5	Sand Fill Under Foundation	m3	5.20	0	1,620	41,800	0	8,424	217,360	225,784
Sub Total										1,955,219
<b>II. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	10.23	0	2,900	96,000	0	29,667	982,080	1,011,747
S-B2-Bq-3	Stone Masonry 1:3:10	m3	20.46	0	9,800	166,600	0	200,508	3,408,636	3,609,144
S-B2-Bq-2	Brick block 1:3:10	m3	1.40	0	6,960	326,310	0	9,744	456,834	466,578
Sub Total										5,087,469
<b>III. REINFORCEMENT CONCRETE WORK</b>										
S-B4-Bq-1	Concrete K-225	m3	4.56	0	43,680	184,460	0	199,181	841,138	1,040,318
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	894.23	0	1,203	9,128	0	1,075,759	8,162,531	9,238,290
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg		0	1,286	9,320	0	0	0	0
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	3.82	0	30,410	422,790	0	116,166	1,615,058	1,731,224
Sub Total										12,009,833
<b>IV. ROOFING WORK</b>										
S-B5-Bq-6	Steel Truss	Kg	618.60	6,310	0	5,699	3,903,366	0	3,525,401	7,428,767
S-B5-Bq-7	Steel Purlin	Kg	418.73	6,310	0	5,699	2,642,186	0	2,386,342	5,028,529
S-B5-Bq-5	Timber Rafters and Timber Batten	m2	148.50	0	420	25,890	0	62,370	3,844,665	3,907,035
S-B5-Bq-11	Gutter Timber Batten	m2	22.80	0	600	41,310	0	13,680	941,868	955,548
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	12.60	0	240	83,060	0	3,024	1,046,556	1,049,580
S-B5-Bq-13	Plywood Roof Cover	m2	148.50	0	2,090	28,020	0	310,365	4,160,970	4,471,335
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	148.50	0	1,050	15,160	0	155,925	2,251,260	2,407,185
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2	13.00	0	18,600	56,130	0	241,800	729,690	971,490
S-B5-Bq-3	Ceramic Roof Tile	m2	148.50	0	12,150	40,350	0	1,804,275	5,991,975	7,796,250
S-B5-Bq-4	Ceramic Ridge Tile	m	50.00	0	8,790	46,890	0	439,500	2,344,500	2,784,000
Sub Total										36,799,719
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	2.66	0	16,610	368,140	0	44,183	979,252	1,023,435
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	15.23	0	6,960	336,310	0	106,001	5,122,001	5,228,002
Sub Total										6,251,437
<b>VI. PLASTER WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	47.16	0	900	9,100	0	42,444	429,156	471,600
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	253.79	0	400	7,200	0	101,516	1,827,288	1,928,804
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	16.17	0	1,200	10,000	0	19,404	161,700	181,104
S-B6-Bq-8	Terracotta	m2	25.40	0	9,660	36,550	0	245,364	928,370	1,173,734
Sub Total										3,755,242
<b>VII. DOORS AND WINDOW WORKS</b>										
S-B8-Bq-1	Aluminium windowing	m	52.85	0	7,950	67,320	0	420,158	3,557,862	3,978,020
S-B8-Bq-24	Teakwood Panel	m2	8.21	0	300	455,700	0	2,463	3,741,297	3,743,760
S-B8-Bq-6	Aluminium Door Frame	m	19.50	0	6,330	63,540	0	123,435	1,239,030	1,362,465
S-B8-Bq-7	Aluminium Sliding-Window Frame	m	12.20	0	6,330	42,860	0	77,226	522,892	600,118
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	3.00	0	15,600	48,570	0	46,800	145,710	192,510
S-B8-Bq-9	Esapezolette	pieces		0	10,920	37,650	0	0	0	0
S-B8-Bq-10	Door Hinges (125 mm)	pieces	9.00	0	1,320	15,950	0	11,880	143,550	155,430
S-B8-Bq-11	Windows Hinges (75 mm)	pieces	1.00	0	1,320	15,950	0	1,320	15,950	17,270
S-B8-Bq-12	Al-Louvre	m2		0	10,200	150,040	0	0	0	0
S-B8-Bq-13	Door Stopper	pieces		0	12,480	41,290	0	0	0	0
Sub Total										10,049,573
<b>VIII. GLAZING WORK</b>										
S-B9-Bq-8	Floot Glass H = 5 mm, (Natural Colour)	m2	8.69	0	14,900	36,850	0	129,481	320,227	449,708
Sub Total										449,708
<b>IX. INTERIOR FINISHING</b>										
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	81.30	0	2,220	85,170	0	180,486	6,924,321	7,104,807
S-B10-Bq-2	Wood Cornice	m	131.10	0	30	4,810	0	3,933	630,591	634,524
S-B10-Bq-3	Stainless Steel Hand Rail	m		144,220	0	37,413	0	0	0	0
S-B10-Bq-4	Stainless Steel Railing	m		361,152	0	93,711	0	0	0	0
Sub Total										7,739,331
<b>X. TILE WORK</b>										
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	42.75	0	9,660	36,550	0	412,965	1,562,513	1,975,478
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Non-slip Texture)	m2	15.00	0	9,660	36,550	0	144,900	548,250	693,150
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	15.30	0	9,660	36,550	0	147,798	539,215	707,013
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Non-slip Texture)	m2	1.54	0	9,660	36,550	0	14,876	56,287	71,163
S-B9-Bq-7	Floot Glass H = 100 mm, Rayband (For Wall base)	m	43.70	0	2,950	8,280	0	128,915	361,836	490,751
Sub Total										3,937,555
<b>XI. SANITARY WORK</b>										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	2.50	0	0	36,700	0	0	91,750	91,750
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm)	m	11.00	0	2,750	55,470	0	30,250	610,170	640,420
S-B7-Bq-5	Closet	pieces	1.00	0	730	86,410	0	730	86,410	87,140
S-B7-Bq-6	Washbasin	pieces	1.00	0	40	442,480	0	40	442,480	442,520
S-B7-Bq-11	Floor Drain	pieces	1.00	0	0	60,000	0	0	60,000	60,000
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470
S-B7-Bq-8	Water Stop Valve	pieces	4.00	0	0	67,530	0	0	270,120	270,120
S-B7-Bq-9	Bath Tub (Watertank)	pieces	1.00	0	200	140,170	0	200	140,170	140,370
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.12	100	197,375	2,410,900	12	23,685	289,308	313,005
Sub Total										3,383,795
<b>XII. ELECTRICAL WORK</b>										
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	3.00	0	0	128,060	0	0	384,180	384,180
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	4.00	0	0	233,060	0	0	932,240	932,240
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	1.00	0	0	108,060	0	0	108,060	108,060
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces	4.00	0	0	185,560	0	0	742,240	742,240
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	1.00	0	0	103,060	0	0	103,060	103,060
S-B11-Bq-7	Fuse	pieces	2.00	0	0	26,310	0	0	52,620	52,620
S-B11-Bq-8	Lighting Switch (Single)	pieces	2.00	0	0	10,440	0	0	20,880	20,880
S-B11-Bq-9	Lighting Switch (Double)	pieces	4.00	0	0	10,440	0	0	41,760	41,760
S-B11-Bq-10	Outlet Socket Switch	pieces	5.00	0	0	11,440	0	0	57,200	57,200
S-B11-Bq-11	Outlet Socket Installation	pieces	5.00	0	0	32,420	0	0	162,100	162,100
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310
S-B11-Bq-18	New installation from PLN for 450 VA	pieces	1.00	0	0	108,000	0	0	108,000	108,000
Sub Total										2,743,650
<b>XIII. PAINTING WORK</b>										
S-B9-Bq-1	Wall Painting	m2	81.30	0	1,430	8,570	0	116,259	696,741	813,000
S-B9-Bq-2	Wood Painting	m2	42.00	0	4,100	14,800	0	172,200	621,600	793,800
S-B9-Bq-15	Wood polystyur	m2	17.85	0	200	20,800	0	3,570	371,280	374,850

Table 4.2.7 (10/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

**CONSTRUCTION COST OF STAFF HOUSE 3**

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
S-B9-Bq-6	Steel Protection Painting	m	157.08	0	80	7,690	0	12,566	1,207,945	1,220,512
S-B9-Bq-3	Ceiling Painting	m2	81.30	0	1,440	8,660	0	117,072	704,058	821,130
<b>Sub Total</b>										<b>4,023,292</b>
<b>XY. FURNITURE</b>										
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333
S-B12-Bq-16	Double Bed Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-8	Portable Stove	unit	1.00	0	0	500,000	0	0	500,000	500,000
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-10	Sofa	unit	2.00	0	0	833,333	0	0	1,666,667	1,666,667
<b>Sub Total</b>										<b>4,825,000</b>
<b>Total Cost</b>										<b>103,810,821</b>

Table 4.2.7 (11/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

**CONSTRUCTION COST OF STAFF HOUSE 4**

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total	
				PF/C	IF/C	L/C	PF/C	IF/C	L/C		
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>											
S-B1-Bq-1	Earth Cut, 1 m depth	m3	51.30	0	0	16,000	0	0	820,800	820,800	
S-B1-Bq-2	Earth Fill (Old)	m3	23.19	0	0	7,700	0	0	178,563	178,563	
S-B1-Bq-3	Earth Fill (New)	m3	27.30	502	495	17,061	13,706	13,526	465,767	492,999	
S-B1-Bq-4	Sand Fill	m3	5.46	0	1,620	41,800	0	8,845	228,228	237,073	
S-B1-Bq-5	Sand Fill Under Foundation	m3	5.20	0	1,620	41,800	0	8,424	217,360	225,784	
Sub Total										1,955,219	
<b>II. FOUNDATION WORK</b>											
S-B2-Bq-1	Dry Stone Masonry	m3	10.23	0	2,900	96,000	0	29,667	982,080	1,011,747	
S-B2-Bq-3	Stone Masonry 1:3:10	m3	20.46	0	9,800	166,600	0	200,508	3,408,636	3,609,144	
S-B2-Bq-2	Brick block 1:3:10	m3	1.40	0	6,960	326,310	0	9,744	456,834	466,578	
Sub Total										5,087,469	
<b>III. REINFORCEMENT CONCRETE WORK</b>											
S-B4-Bq-1	Concrete K-225	m3	4.56	0	43,680	184,460	0	199,181	841,138	1,040,318	
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	894.23	0	1,203	9,128	0	1,075,759	8,162,531	9,238,290	
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg		0	1,286	9,320	0	0	0	0	
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	3.82	0	30,410	422,790	0	116,166	1,615,058	1,731,224	
Sub Total										12,009,833	
<b>IV. ROOFING WORK</b>											
S-B5-Bq-6	Steel Truss	Kg	618.60	6,310	0	5,699	3,903,366	0	3,525,401	7,428,767	
S-B5-Bq-7	Steel Purlin	Kg	418.73	6,310	0	5,699	2,642,186	0	2,386,342	5,028,529	
S-B5-Bq-5	Timber Rafters and Timber Batten	m2	148.50	0	420	25,890	0	62,370	3,844,665	3,907,035	
S-B5-Bq-11	Gutter Timber Batten	m2	22.80	0	600	41,310	0	13,680	941,868	955,548	
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	12.60	0	240	83,060	0	3,024	1,046,556	1,049,580	
S-B5-Bq-13	Plywood Roof Cover	m2	148.50	0	2,090	28,020	0	310,365	4,160,970	4,471,335	
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	148.50	0	1,050	15,160	0	155,925	2,251,260	2,407,185	
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2	13.00	0	18,600	56,130	0	241,800	729,690	971,490	
S-B5-Bq-3	Ceramic Roof Tile	m2	148.50	0	12,150	40,350	0	1,804,275	5,991,975	7,796,250	
S-B5-Bq-4	Ceramic Ridge Tile	m	50.00	0	8,790	46,890	0	439,500	2,344,500	2,784,000	
Sub Total										36,799,719	
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>											
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	2.66	0	16,610	368,140	0	44,183	979,252	1,023,435	
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	15.23	0	6,960	336,310	0	106,001	5,122,601	5,228,602	
Sub Total										6,251,437	
<b>VI. PLASTER WORK</b>											
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	47.16	0	900	9,100	0	42,444	429,156	471,600	
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	253.79	0	400	7,200	0	101,516	1,827,288	1,928,804	
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	16.17	0	1,200	10,000	0	19,404	161,700	181,104	
S-B6-Bq-8	Terracotta	m2	25.40	0	9,660	36,550	0	245,364	928,370	1,173,734	
Sub Total										3,755,242	
<b>VII. DOORS AND WINDOW WORKS</b>											
S-B8-Bq-4	Aluminium awning	m	52.85	0	7,950	67,320	0	420,158	3,557,862	3,978,020	
S-B8-Bq-24	Teakwood Panel	m2	8.21	0	300	455,700	0	2,463	3,741,297	3,743,760	
S-B8-Bq-6	Aluminium Door Frame	m	19.50	0	6,330	63,540	0	123,435	1,239,030	1,362,465	
S-B8-Bq-7	Aluminium Sliding Window Frame	m	12.20	0	6,330	42,860	0	77,226	522,892	600,118	
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	3.00	0	15,600	48,570	0	46,800	145,710	192,510	
S-B8-Bq-9	Espressolette	pieces		0	10,920	37,650	0	0	0	0	
S-B8-Bq-10	Door Hinges (125 mm)	pieces	9.00	0	1,320	15,950	0	11,880	143,550	155,430	
S-B8-Bq-11	Windows Hinges (75 mm)	pieces	1.00	0	1,320	15,950	0	1,320	15,950	17,270	
S-B8-Bq-12	Al-Louvre	m2		0	10,200	150,040	0	0	0	0	
S-B8-Bq-13	Door Stopper	pieces		0	12,480	41,290	0	0	0	0	
Sub Total										10,049,573	
<b>VIII. GLAZING WORK</b>											
S-B9-Bq-8	Float Glass H = 5 mm, (Natural Colour)	m2	8.69	0	14,900	36,850	0	129,481	320,227	449,708	
Sub Total										449,708	
<b>IX. INTERIOR FINISHING</b>											
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	81.30	0	2,220	85,170	0	180,486	6,924,321	7,104,807	
S-B10-Bq-2	Wood Cornice	m	131.10	0	30	4,810	0	3,933	630,591	634,524	
S-B10-Bq-3	Stainless Steel Hand Rail	m		144,220	0	37,413	0	0	0	0	
S-B10-Bq-4	Stainless Steel Railing	m		361,152	0	93,711	0	0	0	0	
Sub Total										7,739,331	
<b>X. TILE WORK</b>											
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	42.75	0	9,660	36,550	0	412,965	1,562,513	1,975,478	
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Non-slip Texture)	m2	15.00	0	9,660	36,550	0	144,900	548,250	693,150	
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	15.30	0	9,660	36,550	0	147,798	559,215	707,013	
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Non-slip Texture)	m2	1.54	0	9,660	36,550	0	14,876	56,287	71,163	
S-B9-Bq-7	Float Glass H = 100 mm, Raybond (For Wall base)	m	43.70	0	2,950	8,280	0	128,915	361,836	490,751	
Sub Total										3,937,555	
<b>XI. SANITARY WORK</b>											
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	2.50	0	0	36,700	0	0	91,750	91,750	
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm)	m	11.00	0	2,750	55,470	0	30,250	610,170	640,420	
S-B7-Bq-5	Closet	pieces	1.00	0	730	86,410	0	730	86,410	87,140	
S-B7-Bq-6	Washbak	pieces	1.00	0	40	442,480	0	40	442,480	442,520	
S-B7-Bq-11	Floor Drain	pieces	1.00	0	0	60,000	0	0	60,000	60,000	
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470	
S-B7-Bq-8	Water Stop Valve	pieces	4.00	0	0	67,530	0	0	270,120	270,120	
S-B7-Bq-9	Bath Tub (Watertank)	pieces	1.00	0	200	140,170	0	200	140,170	140,370	
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.12	100	197,375	2,410,900	12	23,685	289,308	313,005	
Sub Total										3,383,795	
<b>XII. ELECTRICAL WORK</b>											
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	3.00	0	0	128,060	0	0	384,180	384,180	
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	4.00	0	0	233,060	0	0	932,240	932,240	
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	1.00	0	0	108,060	0	0	108,060	108,060	
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces	4.00	0	0	185,560	0	0	742,240	742,240	
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	1.00	0	0	103,060	0	0	103,060	103,060	
S-B11-Bq-7	Fuse	pieces	2.00	0	0	26,310	0	0	52,620	52,620	
S-B11-Bq-8	Lighting Switch (Single)	pieces	2.00	0	0	10,440	0	0	20,880	20,880	
S-B11-Bq-9	Lighting Switch (Double)	pieces	4.00	0	0	10,440	0	0	41,760	41,760	
S-B11-Bq-10	Outlet Socket Switch	pieces	5.00	0	0	11,440	0	0	57,200	57,200	
S-B11-Bq-11	Outlet Socket Installation	pieces	5.00	0	0	32,420	0	0	162,100	162,100	
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310	
S-B11-Bq-18	New Installation from PLN for 450 VA	pieces	1.00	0	0	108,000	0	0	108,000	108,000	
Sub Total										2,743,650	
<b>XIII. PAINTING WORK</b>											
S-B9-Bq-1	Wall Painting	m2	81.30	0	1,430	8,570	0	116,259	696,741	813,000	
S-B9-Bq-2	Wood Painting	m2	42.00	0	4,100	14,800	0	172,200	621,600	793,800	
S-B9-Bq-15	Wood polysty	m2	17.85	0	200	20,800	0	3,570	371,280	374,850	

Table 4.2.7 (12/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

**CONSTRUCTION COST OF STAFF HOUSE 4**

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
S-B9-Bq-6	Steel Protection Painting	m	157.08	0	80	7,690	0	12,566	1,207,945	1,220,512
S-B9-Bq-3	Ceiling Painting	m2	81.30	0	1,440	8,660	0	117,072	704,058	821,130
<b>XV. FURNITURE</b>										<b>Sub Total</b>
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333
S-B12-Bq-16	Double Bed Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-8	Portable Stove	unit	1.00	0	0	500,000	0	0	500,000	500,000
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000
S-B12-Bq-10	Sofa	unit	2.00	0	0	833,333	0	0	1,666,667	1,666,667
										<b>Sub Total</b>
										<b>4,825,000</b>
										<b>Total Cost</b>
										<b>183,016,821</b>

Table 4.2.7 (13/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

## CONSTRUCTION COST OF MUSHOLA

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				P/F/C	I/F/C	L/C	P/F/C	I/F/C	L/C	
<b>I. EXCAVATION, FILLING AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	64.43	0	0	16,000	0	0	1,030,880	1,030,880
S-B1-Bq-2	Earth Fill (Old)	m3	28.05	0	0	7,700	0	0	215,985	215,985
S-B1-Bq-3	Earth Fill (New)	m3	22.70	502	495	17,061	11,397	11,247	387,287	409,930
S-B1-Bq-4	Sand Fill	m3	8.10	0	1,620	41,800	0	13,122	338,580	351,702
S-B1-Bq-5	Sand Fill Under Foundation	m3	6.68	0	1,620	41,800	0	10,822	279,224	290,046
									Sub Total	2,298,542
<b>II. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	12.21	0	2,900	96,000	0	35,409	1,172,160	1,207,569
S-B2-Bq-3	Stone Masonry 1:3:10	m3	34.32	0	9,800	166,600	0	336,336	5,717,712	6,054,048
S-B2-Bq-2	Brick block 1:3:10	m3	2.09	0	6,960	326,310	0	14,546	681,988	696,534
									Sub Total	7,958,151
<b>III. REINFORCEMENT CONCRETE WORK</b>										
S-B4-Bq-1	Concrete K-225	m3	7.72	0	43,680	184,460	0	337,210	1,424,031	1,761,241
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	1,554.06	0	1,203	9,128	0	1,869,534	14,185,460	16,054,994
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg		0	1,286	9,320	0	0	0	0
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	5.67	0	30,410	422,790	0	172,425	2,397,219	2,569,644
									Sub Total	20,385,879
<b>IV. ROOFING WORK</b>										
S-B5-Bq-6	Steel Truss	Kg	496.89	6,310	0	5,699	3,135,376	0	2,831,776	5,967,152
S-B5-Bq-7	Steel Purlin	Kg	554.30	6,310	0	5,699	3,497,633	0	3,158,956	6,656,589
S-B5-Bq-5	Timber Rafter and Timber Batten	m2	172.80	0	420	25,890	0	72,576	4,473,792	4,546,368
S-B5-Bq-11	Gutter Timber Batten	m2	12.24	0	600	41,310	0	7,344	505,634	512,978
S-B5-Bq-12	Facing Timber Batten 30 x 300 mm	m2	14.40	0	240	83,060	0	3,456	1,196,064	1,199,520
S-B5-Bq-13	Plywood Roof Cover	m2	172.80	0	2,090	28,020	0	361,152	4,841,856	5,203,008
S-B5-Bq-9	Asphalt Sheet Roof Cover	m2	172.80	0	1,050	15,160	0	181,440	2,619,648	2,801,088
S-B5-Bq-10	Colour Bond Metal Sheet (Gutter)	m2		0	18,600	56,130	0	0	0	0
S-B5-Bq-3	Ceramic Roof Tile	m2	172.80	0	12,150	40,350	0	2,099,520	6,972,480	9,072,000
S-B5-Bq-4	Ceramic Ridge Tile	m	40.80	0	8,790	46,890	0	358,632	1,913,112	2,271,744
									Sub Total	38,230,447
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	5.52	0	16,610	368,140	0	91,687	2,032,133	2,123,820
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	18.35	0	6,960	336,310	0	127,716	6,171,289	6,299,005
									Sub Total	8,422,825
<b>VI. PLASTER WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	61.32	0	900	9,100	0	55,188	558,012	613,200
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	305.90	0	400	7,200	0	122,360	2,202,480	2,324,840
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	84.54	0	1,200	10,000	0	101,448	845,400	946,848
S-B6-Bq-8	Terrazzo	m2	46.76	0	9,660	36,550	0	451,702	1,709,078	2,160,780
									Sub Total	6,045,668
<b>VII. DOORS AND WINDOW WORKS</b>										
S-B8-Bq-4	Aluminium awning	m	87.90	0	7,950	67,320	0	698,805	5,917,428	6,616,233
S-B8-Bq-5	Aluminium Rolling Door	m2		0	26,780	90,570	0	0	0	0
S-B8-Bq-6	Aluminium Door Frame	m	11.80	0	6,330	63,540	0	74,694	749,772	824,466
S-B8-Bq-7	Aluminium Sliding Window Frame	m		0	6,330	42,860	0	0	0	0
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	2.00	0	15,600	48,570	0	31,200	97,140	128,340
S-B8-Bq-9	Espressolette	pieces	2.00	0	10,920	37,650	0	21,840	75,300	97,140
S-B8-Bq-10	Door Hinges (125 mm)	pieces	12.00	0	1,320	15,950	0	15,840	191,400	207,240
S-B8-Bq-11	Windows Hinges (75 mm)	pieces		0	1,320	15,950	0	0	0	0
S-B8-Bq-12	Al-Louvre	m2	2.04	0	10,200	150,040	0	20,808	306,082	326,890
S-B8-Bq-13	Door Stopper	pieces	4.00	0	12,480	41,290	0	49,920	165,160	215,080
									Sub Total	8,415,389
<b>VIII. GLAZING WORK</b>										
S-B9-Bq-8	Floot Glass H = 5 mm, (Natural Colour)	m2	10.01	0	14,900	36,850	0	149,149	368,869	518,018
									Sub Total	518,018
<b>IX. INTERIOR FINISHING</b>										
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	104.40	0	2,220	85,170	0	231,768	8,891,748	9,123,516
S-B10-Bq-2	Wood Cornice	m	168.00	0	30	4,810	0	5,040	808,080	813,120
S-B10-Bq-3	Stainless Steel Hand Rail	m		144,220	0	37,413	0	0	0	0
S-B10-Bq-4	Stainless Steel Railing	m		361,152	0	93,711	0	0	0	0
									Sub Total	9,936,636
<b>X. TILE WORK</b>										
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	70.80	0	9,660	36,550	0	683,928	2,587,740	3,271,668
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Non-slip Texture)	m2	10.40	0	9,660	36,550	0	100,464	380,120	480,584
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	49.39	0	9,660	36,550	0	479,039	1,812,515	2,291,554
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Non-slip Texture)	m2	15.10	0	9,660	36,550	0	145,866	551,505	697,771
S-B9-Bq-7	Floot Glass H = 100 mm, Rayband (For Wall base)	m	19.50	0	2,950	8,280	0	57,525	161,460	218,985
									Sub Total	6,960,562
<b>XI. SANITARY WORK</b>										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	56.00	0	0	36,700	0	0	2,055,200	2,055,200
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm)	m	12.00	0	2,750	55,470	0	33,000	665,640	698,640
S-B7-Bq-5	Close	pieces	2.00	0	730	86,410	0	1,460	172,820	174,280
S-B7-Bq-6	Washbak	pieces		0	40	442,480	0	0	0	0
S-B7-Bq-11	Floor Drain	pieces	8.00	0	0	60,000	0	0	480,000	480,000
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470
S-B7-Bq-8	Water Stop Valve	pieces	16.00	0	0	67,530	0	0	1,080,480	1,080,480
S-B7-Bq-9	Bath Tub (Watertank)	pieces	2.00	0	200	140,170	0	400	280,340	280,740
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3		100	197,375	2,410,900	0	0	0	0
									Sub Total	6,107,810
<b>XII. ELECTRICAL WORK</b>										
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	11.00	0	0	128,060	0	0	1,408,660	1,408,660
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces		0	0	233,060	0	0	0	0
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	5.00	0	0	108,060	0	0	540,300	540,300
S-B11-Bq-4	Installation and Lighting 15W-2 FL	pieces		0	0	185,560	0	0	0	0
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	4.00	0	0	103,060	0	0	412,240	412,240
S-B11-Bq-26	Air Condition (1PK)	pieces		0	0	4,057,240	0	0	0	0
S-B11-Bq-7	Fuse	pieces	2.00	0	0	26,310	0	0	52,620	52,620
S-B11-Bq-8	Lighting Switch (Single)	pieces	2.00	0	0	10,440	0	0	20,880	20,880
S-B11-Bq-9	Lighting Switch (Double)	pieces	5.00	0	0	10,440	0	0	52,200	52,200
S-B11-Bq-10	Outlet Socket Switch	pieces	5.00	0	0	11,440	0	0	57,200	57,200
S-B11-Bq-11	Outlet Socket Installation	pieces	5.00	0	0	32,420	0	0	162,100	162,100
S-B11-Bq-12	Lightning Protector	pieces		0	0	750,000	0	0	0	0
S-B11-Bq-13	Outlet Socket and Installation for AC	pieces		0	0	77,420	0	0	0	0
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310
S-B11-Bq-15	New Installation from PLN for 3500 VA	pieces	1.00	0	0	1,300,000	0	0	1,300,000	1,300,000
									Sub Total	4,037,510
<b>XIII. PAINTING WORK</b>										

Table 4.2.7 (14/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

CONSTRUCTION COST OF MUSHOLA

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
S-B9-Bq-1	Wall Painting	m2	367.22	0	1,430	8,570	0	525,125	3,147,075	3,672,200
S-B9-Bq-2	Wood Painting	m2	48.00	0	4,100	14,800	0	196,800	710,400	907,200
S-B9-Bq-15	Wood polyur	m2	8.28	0	200	20,800	0	1,656	172,224	173,880
S-B9-Bq-6	Steel Protection Painting	m	139.53	0	80	7,690	0	11,162	1,072,986	1,084,148
S-B9-Bq-3	Ceiling Painting	m2	146.40	0	1,440	8,660	0	210,816	1,267,824	1,478,640
Sub Total										7,316,068
Total Cost										126,633,984

Table 4.2.7 (15/15) COST CALCULATION OF DAM MANAGEMENT COMPLEX

**CONSTRUCTION COST OF EXTERNAL WORK**

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
<b>I. TEMPORARY WORK</b>										
S-B14-Bq-1	Uitzet & Bouwplank	m2	657.00	0	0	3,500	0	0	2,299,500	2,299,500
S-B14-Bq-2	Water & Electricity for Work	L.S	1.00	0	0	3,750,000	0	0	3,750,000	3,750,000
S-B14-Bq-3	Administration & Documentation	L.S	1.00	0	0	2,500,000	0	0	2,500,000	2,500,000
Sub Total										8,549,500
<b>II. EXCAVATION, FILLING AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	57.74	0	0	16,000	0	0	923,840	923,840
S-B1-Bq-2	Earth Fill (Old)	m3	4.03	0	0	7,700	0	0	31,031	31,031
S-B1-Bq-4	Sand Fill	m3	158.46	0	1,620	41,800	0	256,705	6,623,628	6,880,333
Sub Total										7,835,204
<b>III. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	172.40	0	2,900	96,000	0	499,960	16,550,400	17,050,360
S-B2-Bq-2	Brick block 1:3:10	m3	27.24	0	6,960	326,310	0	189,590	8,888,684	9,078,275
S-B2-Bq-3	Stone Masonry 1:3:10	m3	167.90	0	9,800	166,600	0	1,645,420	27,972,140	29,617,560
Sub Total										55,746,195
<b>IV. FENCE WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	107.71	0	900	9,100	0	96,939	980,161	1,077,100
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Nonslip Texture)	m2	37.99	0	9,660	36,350	0	366,983	1,388,535	1,755,518
S-B9-Bq-1	Wall Painting	m2	42.89	0	1,430	8,570	0	61,333	367,567	428,900
Sub Total										3,261,518
<b>V. SANITAIR WORK</b>										
S-B7-Bq-13	Drainage U-300	m	810.91	0	2,400	36,500	0	1,946,184	29,598,215	31,544,399
S-B4-Bq-10	Fence's Foundation (RC)	m3	5.21	100	203,755	2,127,660	521	1,061,564	11,083,109	12,147,193
S-B7-Bq-18	Deepwell	unit	1.00	0	0	50,000,000	0	0	50,000,000	50,000,000
S-B7-Bq-12	Drainage Box	pieces	36.00	0	12,320	134,950	0	443,520	4,858,200	5,301,720
Sub Total										98,993,312
<b>VI. ELECTRICAL WORK</b>										
S-B11-Bq-9	Lighting Switch (Double)	pieces	1.00	0	0	10,440	0	0	10,440	10,440
S-B11-Bq-7	Fuse	pieces	1.00	0	0	26,310	0	0	26,310	26,310
S-B11-Bq-21	General Lighting Installation	pieces	14.00	0	0	53,060	0	0	742,840	742,840
S-B11-Bq-22	General Lighting 36W-2 + Pole	pieces	14.00	112,820	1,540	263,320	1,579,480	21,560	3,686,480	5,287,520
S-B11-Bq-14	Fuse Box	pieces	1.00	0	0	31,310	0	0	31,310	31,310
S-B11-Bq-23	New Installation from PLN for 1300 VA	pieces	1.00	0	0	528,000	0	0	528,000	528,000
Sub Total										6,098,420
<b>VII. LANDSCAPING</b>										
S-B15-Bq-1	Paving Kansteen (Paving Border)	m	497.38	0	0	35,900	0	0	17,855,942	17,855,942
S-B15-Bq-2	Gravel	m3	2.50	0	1,360	31,260	0	3,400	78,150	81,550
S-B15-Bq-5	Paving Block	m2	951.90	0	5,700	44,800	0	5,425,830	42,645,120	48,070,950
S-B15-Bq-9	Plantation 5	m2	2,609.33	0	0	5,000	0	0	13,046,650	13,046,650
Sub Total										79,055,092
Total Cost										259,539,241



Table 4.2.8 (1/5) COST CALCULATION OF HYDRO POWER STATION BUILDINGS

## CONSTRUCTION COST OF HYDRO POWER STATION BUILDING

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PF/C	IF/C	L/C	PF/C	IF/C	L/C	
I. EXCAVATION, FILLING AND GRADING WORK										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	10.52	0	0	16,000	0	0	168,320	168,320
S-B1-Bq-2	Earth Fill (Old)	m3	6.31	0	0	7,700	0	0	48,587	48,587
S-B1-Bq-3	Earth Fill (New)	m3	8.24	502	495	17,061	4,137	4,082	140,583	148,803
S-B1-Bq-4	Sand Fill	m3	2.28	0	1,620	41,800	0	3,694	95,304	98,998
S-B1-Bq-5	Sand Fill Under Foundation	m3	0.88	0	1,620	41,800	0	1,426	36,784	38,210
Sub Total										502,917
II. FOUNDATION WORK										
S-B2-Bq-1	Dry Stone Masonry	m3	1.31	0	2,900	96,000	0	3,799	125,760	129,559
S-B2-Bq-3	Stone Masonry 1:3:10	m3	7.61	0	9,800	166,600	0	74,578	1,267,826	1,342,404
S-B2-Bq-2	Brick block 1:3:10	m3	5.43	0	6,960	326,310	0	37,793	1,771,863	1,809,656
Sub Total										3,281,619
III. REINFORCEMENT CONCRETE WORK										
S-B4-Bq-12	Concrete K-250	m3	217.13	0	45,870	193,200	0	9,959,753	41,949,516	51,909,269
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	24,636.99	0	1,203	9,128	0	29,638,299	224,886,445	254,524,744
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg	20,883.52	0	1,286	9,320	0	26,856,207	194,634,406	221,490,613
S-B4-Bq-13	Scaffolding	m2	253.75	14,740	70	15,630	3,740,275	17,763	3,966,113	7,724,150
S-B4-Bq-2	Light Concrete (Concrete 1:3:3)	m3	0.31	0	30,410	422,790	0	9,427	131,063	140,492
Sub Total										535,789,268
IV. ROOFING WORK										
S-B5-Bq-6	Steel Truss	Kg	580.60	6,310	0	5,699	3,663,586	0	3,308,839	6,972,425
S-B5-Bq-7	Steel Purlin	Kg	4,516.58	6,310	0	5,699	28,499,620	0	25,739,989	54,239,609
S-B5-Bq-23	Facing Plate I	m2	62.00	0	0	26,500	0	0	1,643,000	1,643,000
S-B5-Bq-24	Facing Plate II	m2	29.00	0	0	29,000	0	0	841,000	841,000
S-B5-Bq-25	Sandwich Layer & Steel Roof	m2	449.50	0	63,870	190,220	0	28,709,565	85,503,899	114,213,455
S-B5-Bq-26	Capping	m	31.00	0	8,280	21,320	0	256,680	660,920	917,600
S-B5-Bq-27	Polycarbonate Frame	Kg	238.09	7,133	0	5,742	1,698,796	0	1,367,113	3,065,409
S-B5-Bq-28	Polycarbonate Roof Sheet	m2	27.75	0	530	113,960	0	14,708	3,162,390	3,177,098
S-B5-Bq-29	Aluminium Capping	m	14.40	0	8,280	21,320	0	119,232	307,008	426,240
S-B5-Bq-30	Asphalt Sheet Water Proofing 5 mm	m2	310.23	0	14,070	23,110	0	4,364,936	7,169,415	11,534,351
Sub Total										197,039,187
V. CONCRETE BLOCK WORK AND BRICKWORK										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	7.15	0	16,610	368,140	0	118,762	2,632,201	2,750,963
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	67.96	0	6,960	336,310	0	473,002	22,855,628	23,328,629
Sub Total										26,079,592
VI. PLASTER WORK										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	118.55	0	900	9,100	0	106,695	1,078,805	1,185,500
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	1,132.70	0	400	7,200	0	453,080	8,155,440	8,608,520
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	1,786.84	0	1,200	10,000	0	2,144,208	17,808,400	20,012,608
S-B6-Bq-7	Grouto Tile for Entrance Wall	m2	11.52	0	47,160	124,050	0	543,283	1,429,036	1,972,339
S-B6-Bq-8	Terrazzo	m2	131.65	0	9,660	36,350	0	1,271,739	4,811,808	6,083,547
Sub Total										37,862,314
VII. DOORS AND WINDOW WORKS										
S-B8-Bq-4	Aluminium awning	m	362.05	0	7,950	67,320	0	2,878,298	24,373,206	27,251,504
S-B8-Bq-18	Aluminium Window Frame	m	67.40	0	4,170	58,500	0	281,058	3,942,900	4,223,958
S-B8-Bq-6	Aluminium Door Frame	m	45.00	0	6,330	63,540	0	284,850	2,859,300	3,144,150
S-B8-Bq-22	Steel Frame for Teakwood Door	m	52.00	8,970	0	7,250	466,440	0	377,000	843,440
S-B8-Bq-15	Door Keys for Toilet Door	pieces	1.00	0	15,600	48,570	0	15,600	48,570	64,170
S-B8-Bq-23	Door Handle for Entrance Door	pieces	2.00	0	78,000	194,170	0	156,000	388,340	544,340
S-B8-Bq-19	Door Handle for Aluminium Door	pieces	12.00	0	18,720	55,830	0	224,640	670,200	894,840
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	12.00	0	15,600	48,570	0	187,200	582,840	770,040
S-B8-Bq-9	Espagnolette	pieces	3.00	0	10,920	37,650	0	32,760	112,950	145,710
S-B8-Bq-10	Door Hinge (125 mm)	pieces	23.00	0	1,320	15,950	0	30,360	366,850	397,210
S-B8-Bq-12	Al-Louvre	m2	19.71	0	10,200	150,040	0	201,042	2,957,288	3,158,330
S-B8-Bq-24	Teakwood Panel	m2	24.64	0	300	453,700	0	7,392	11,228,448	11,235,840
S-B8-Bq-25	Aluminium Panel	m2	17.01	0	19,580	58,410	0	333,056	993,154	1,326,610
S-B8-Bq-26	Louvre for Ventilation Door	m2	0.20	0	500	253,000	0	100	50,600	50,700
S-B8-Bq-27	Mirror Stainless Steel Sheet t=1.2 mm	m2	3.84	0	0	329,690	0	0	1,266,010	1,266,010
S-B8-Bq-28	Aluminium Rolling Shutter (Motorize)	m2	25.20	0	156,000	376,170	0	3,931,200	9,479,484	13,410,684
S-B8-Bq-29	Door Closer	pieces	6.00	0	46,800	121,370	0	280,800	728,220	1,009,020
S-B8-Bq-13	Door Stopper	pieces	12.00	0	12,480	41,290	0	149,760	493,480	645,240
Sub Total										70,381,795
VIII. INTERIOR FINISHING										
S-B10-Bq-3	Waterproof Gypsum Board 10 mm + Wood Frame	m2	133.63	0	420	100,470	0	64,523	15,435,206	15,499,731
S-B10-Bq-15	Gypsumboard Panel	m2	20.65	0	420	89,990	0	8,673	1,858,294	1,866,967
S-B10-Bq-6	Gypsum Cornice for Ceiling	m	114.20	0	30	15,810	0	3,426	1,805,502	1,808,928
S-B10-Bq-16	Access Floor	m2	43.69	0	0	610,000	0	0	26,630,900	26,630,900
S-B10-Bq-17	Aluminium Sprocket for Ceiling	m2	38.96	0	750	145,000	0	29,220	5,649,200	5,678,420
S-B10-Bq-18	Aluminium Frame for Partition	m	79.55	0	4,170	58,500	0	331,724	4,633,675	4,965,399
S-B10-Bq-19	Ventilation Hole D = 600 + Steel Frame	pieces	20.00	63,000	9,000	127,500	1,260,000	180,000	2,550,000	3,990,000
Sub Total										60,480,344
IX. TILE WORK										
S-B6-Bq-3	Ceramic Floor Tile, 300 x 300 mm	m2	119.35	0	9,660	36,550	0	1,152,921	4,362,243	5,515,164
S-B6-Bq-6	Stair Nosing Ceramic Tile	m	63.80	0	1,740	6,580	0	114,492	432,964	547,456
S-B6-Bq-4	Ceramic Floor Tile, 300 x 300 mm, (Non-slip Texture)	m2	21.90	0	9,660	36,550	0	211,534	800,445	1,011,999
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	32.67	0	9,660	36,550	0	315,392	1,194,089	1,509,481
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Non-slip Texture)	m2	3.16	0	9,660	36,550	0	30,526	115,496	146,024
S-B9-Bq-7	Floor Glass H = 100 mm, Raybond (For Wall base)	m	56.55	0	2,950	8,280	0	166,823	468,234	635,057
Sub Total										9,365,379
X. SANITARY WORK										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	50.00	0	0	36,700	0	0	1,835,000	1,835,000
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm (1"))	m	18.00	0	2,750	35,470	0	49,500	998,460	1,047,960
S-B7-Bq-4	PVC Gutter (1/2 D= 110 mm)	m	33.00	0	1,380	52,270	0	45,540	1,724,910	1,770,450
S-B7-Bq-19	PVC Gutter (D = 110 mm)	m	129.00	0	2,750	35,470	0	354,750	7,153,650	7,510,380
S-B7-Bq-7	Hand Sink (Washbasin)	pieces	2.00	0	40	242,480	0	80	484,960	485,040
S-B7-Bq-17	Sink Case	pieces	1.00	0	40	71,480	0	40	71,480	71,520
S-B7-Bq-5	Closet	pieces	1.00	0	730	86,410	0	730	86,410	87,140
S-B7-Bq-6	Washbasin	pieces	1.00	0	40	442,480	0	40	442,480	442,520
S-B7-Bq-20	Roof Drain	pieces	10.00	0	0	50,000	0	0	500,000	500,000
S-B7-Bq-11	Floor Drain	pieces	1.00	0	0	60,000	0	0	60,000	60,000
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470
S-B7-Bq-8	Water Stop Valve	pieces	6.00	0	0	67,530	0	0	405,180	405,180
S-B7-Bq-9	Bath Tub (Water tank)	pieces	1.00	0	200	140,170	0	200	140,170	140,370
S-B7-Bq-10	Kitchen table (Reinforcement Concrete)	m3	0.31	100	197,375	2,410,900	31	61,186	747,379	808,596
Sub Total										16,502,600
XI. ELECTRICAL WORK										
S-B11-Bq-28	Lighting Syst	pieces	5.00	0	0	75,000	0	0	375,000	375,000
S-B11-Bq-29	Ground Cable D = 12 mm	m	103.00	0	0	32,063	0	0	3,302,323	3,302,323
S-B11-Bq-30	Lightning Protection Equipment	pieces	2.00	0	0	250,000	0	0	500,000	500,000
S-B11-Bq-31	Grounding Box	pieces	2.00	0	0	100,000	0	0	200,000	200,000
S-B11-Bq-32	T-Dot	pieces	110.00	0	0	12,500	0	0	1,375,000	1,375,000

Table 4.2.8 (2/5) COST CALCULATION OF HYDRO POWER STATION BUILDINGS

## CONSTRUCTION COST OF HYDRO POWER STATION BUILDING

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total	
				PEC	IFC	L/C	PEC	IFC	L/C		
S-B11-Bq-33	Switch	pieces	20.00	0	0	21,440	0	0	428,800	428,800	
S-B11-Bq-34	Wall Switch	pieces	5.00	0	0	91,440	0	0	457,200	457,200	
S-B11-Bq-35	PVC Pipe D = 1.25	m	904.00	0	9,750	27,790	0	8,814,000	25,122,160	33,936,160	
S-B11-Bq-36	Main Panel	pieces	1.00	0	0	500,000	0	0	500,000	500,000	
S-B11-Bq-37	Distribution Panel	pieces	1.00	0	0	300,000	0	0	300,000	300,000	
S-B11-Bq-38	Outlet Socket 200 W	pieces	21.00	0	0	22,420	0	0	470,820	470,820	
S-B11-Bq-39	Outlet Socket 400 W	pieces	20.00	0	0	22,420	0	0	448,400	448,400	
S-B11-Bq-40	Outlet Socket 1000 W	pieces	5.00	0	0	82,420	0	0	412,100	412,100	
S-B11-Bq-1	Installation and Lighting 40W-2 FL	pieces	24.00	0	0	233,060	0	0	5,593,440	5,593,440	
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	29.00	0	0	123,060	0	0	3,713,740	3,713,740	
S-B11-Bq-3	Installation and Lighting 20W-1 FL	pieces	28.00	0	0	108,060	0	0	3,023,680	3,023,680	
S-B11-Bq-41	H 1 x 300 W	pieces	10.00	0	0	260,560	0	0	2,605,600	2,605,600	
S-B11-Bq-42	H 1 x 400 W	pieces	2.00	0	0	355,060	0	0	710,120	710,120	
S-B11-Bq-43	FNB 100 A	pieces	1.00	0	0	363,310	0	0	363,310	363,310	
S-B11-Bq-44	FNB 63 A	pieces	1.00	0	0	476,310	0	0	476,310	476,310	
S-B11-Bq-45	NCB 32 A	pieces	1.00	0	0	61,310	0	0	61,310	61,310	
S-B11-Bq-46	NCB 16 A	pieces	5.00	0	0	51,310	0	0	256,550	256,550	
S-B11-Bq-47	NCB 6 A	pieces	8.00	0	0	51,310	0	0	410,480	410,480	
S-B11-Bq-48	Grounding Cable D = 6 mm	m	38.00	0	0	9,783	0	0	371,767	371,767	
S-B11-Bq-49	Cable NYM 4 x 16 mm	m	40.00	0	0	62,813	0	0	2,512,533	2,512,533	
S-B11-Bq-50	Cable NYM 3 x 4 mm	m	289.60	0	0	8,657	0	0	2,506,971	2,506,971	
S-B11-Bq-51	Cable NYM 3 x 2.5 mm	m	671.25	0	0	5,580	0	0	3,745,575	3,745,575	
S-B11-Bq-52	Cable NYM 2 x 2.5 mm	m	695.94	0	0	5,983	0	0	4,164,041	4,164,041	
S-B11-Bq-26	Air Condition (IPK)	pieces	4.00	0	0	4,057,240	0	0	16,228,960	16,228,960	
S-B11-Bq-53	Air Blower (inhouse) 0.5 PK	unit	16.00	0	0	531,870	0	0	8,509,920	8,509,920	
S-B11-Bq-54	Emergency Lamp 20 W	unit	10.00	0	0	200,000	0	0	2,000,000	2,000,000	
S-B11-Bq-55	PABX (20 Output Line)	unit	1.00	0	0	5,000,000	0	0	5,000,000	5,000,000	
S-B11-Bq-56	Telephone Outlet Switch	pieces	14.00	0	0	21,440	0	0	300,160	300,160	
S-B11-Bq-57	Telephone Cable + Installation	m	280.00	0	0	8,307	0	0	2,325,867	2,325,867	
<b>XII. GLAZING WORK</b>										Sub Total	107,588,337
S-B9-Bq-8	Float Glass H = 5 mm, (Natural Colour)	m2	82.38	0	14,900	36,850	0	1,227,462	3,035,703	4,263,165	
S-B9-Bq-19	Float Glass 5 mm (Cloudy Glass)	m2	2.88	0	19,820	48,310	0	57,082	139,133	196,214	
S-B9-Bq-11	Mirror for Lavatory 5 mm	m2	0.72	0	25,030	60,480	0	18,022	43,546	61,567	
<b>XIII. PAINTING WORK</b>										Sub Total	4,520,947
S-B9-Bq-1	Wall Painting	m2	2,713.69	0	1,430	8,570	0	3,880,577	23,256,323	27,136,900	
S-B9-Bq-15	Wood polysty	m2	24.64	0	200	20,800	0	4,928	512,512	517,440	
S-B9-Bq-9	Stairs/Steel Protection Painting	m2	325.80	0	80	7,690	0	26,064	2,505,402	2,531,466	
S-B9-Bq-18	Gypsum Cornice Painting	m	114.20	0	770	5,450	0	87,934	622,390	710,324	
S-B9-Bq-3	Ceiling Painting	m2	192.99	0	1,440	8,660	0	277,330	1,667,829	1,945,159	
<b>XIV. STEEL WORK</b>										Sub Total	32,841,289
S-B13-Bq-18	Maintenance Stair	kg	331.09	7,133	0	5,742	2,361,665	0	1,901,119	4,262,784	
S-B13-Bq-19	I-Beam for Runway Rail	kg	6,750.00	7,133	0	5,742	48,147,750	0	38,758,500	86,906,250	
S-B13-Bq-20	Runway Rail	kg	2,246.04	7,133	0	5,742	16,021,003	0	12,896,762	28,917,765	
S-B13-Bq-21	Bracket, Holding Plates, Bolt, Nut, etc.	kg	810.00	0	1,300	3,974	0	1,053,000	3,218,940	4,271,940	
<b>XV. MISCELLANEOUS WORK</b>										Sub Total	124,358,739
S-B13-Bq-16	Stainless Steel - Air Duct Head	unit	1.00	0	0	1,250,000	0	0	1,250,000	1,250,000	
S-B13-Bq-17	Stainless Steel Cover Entrance Columns	m2	6.24	399,100	0	126,190	2,240,784	0	787,426	3,028,210	
S-B10-Bq-3	Stainless Steel Hand Rail	m	27.35	144,220	0	37,413	3,944,410	0	1,023,246	4,967,656	
<b>XVI. FURNITURE</b>										Sub Total	9,245,866
S-B12-Bq-1	Meeting Room Table	unit	1.00	0	0	2,125,000	0	0	2,125,000	2,125,000	
S-B12-Bq-2	Meeting Room Chair	unit	6.00	0	0	200,000	0	0	1,200,000	1,200,000	
S-B12-Bq-3	Office Table	unit	9.00	0	0	500,000	0	0	4,500,000	4,500,000	
S-B12-Bq-4	Filing Cabinet	unit	6.00	0	0	800,000	0	0	4,800,000	4,800,000	
S-B12-Bq-5	Computer Table	unit	9.00	0	0	600,000	0	0	5,400,000	5,400,000	
S-B12-Bq-17	Locker Cabinet	unit	1.00	0	0	2,800,000	0	0	2,800,000	2,800,000	
S-B12-Bq-6	Dining Table	unit	1.00	0	0	658,333	0	0	658,333	658,333	
S-B12-Bq-8	Portable Stove	unit	1.00	0	0	500,000	0	0	500,000	500,000	
S-B12-Bq-18	Hot & Cold Dispenser	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000	
S-B12-Bq-9	Kitchen Set	unit	1.00	0	0	1,000,000	0	0	1,000,000	1,000,000	
S-B12-Bq-19	Office Chair	unit	1.00	0	0	200,000	0	0	200,000	200,000	
S-B12-Bq-10	Sofa	unit	1.00	0	0	833,333	0	0	833,333	833,333	
<b>Total Cost</b>										<b>1,264,342,895</b>	

Table 4.2.8 (3/5) COST CALCULATION OF HYDRO POWER STATION BUILDINGS

## CONSTRUCTION COST OF GARAGE

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PP/C	IP/C	L/C	PP/C	IP/C	L/C	
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	101.36	0	0	16,000	0	0	1,621,760	1,621,760
S-B1-Bq-2	Earth Fill (Old)	m3	76.26	0	0	7,700	0	0	587,202	587,202
S-B1-Bq-4	Sand Fill	m3	21.67	0	1,620	41,800	0	35,105	905,806	940,911
Sub Total										3,149,873
<b>II. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	4.40	0	2,900	96,000	0	12,760	422,400	435,160
S-B2-Bq-3	Stone Masonry 1:3:10	m3	22.72	0	9,800	166,600	0	222,656	3,785,152	4,007,808
S-B4-Bq-12	Concrete K-250	m3	1.92	0	45,870	193,200	0	88,070	370,944	459,014
S-B4-Bq-4	Steel Bar	Kg	511.12	0	3,350	10,820	0	1,712,252	5,530,318	7,242,570
S-B2-Bq-2	Brick block 1:3:10	m3	6.40	0	6,960	326,310	0	44,544	2,088,384	2,132,928
Sub Total										14,277,481
<b>III. REINFORCEMENT CONCRETE WORK</b>										
S-B4-Bq-12	Concrete K-250	m3	21.58	0	45,870	193,200	0	989,875	4,169,256	5,159,131
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	2,378.42	0	1,203	9,128	0	2,861,239	21,710,218	24,571,457
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	650.34	0	1,203	9,128	0	782,359	5,936,304	6,718,663
S-B4-Bq-8	Steel Bar Deformed Dia. 16 mm	Kg	2,037.70	0	1,286	9,320	0	2,620,482	18,991,364	21,611,846
S-B4-Bq-13	Scaffolding	m2	16.20	14,740	70	15,630	238,788	1,134	253,206	493,128
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	23.00	0	30,410	422,790	0	699,430	9,724,170	10,423,600
Sub Total										68,977,824
<b>IV. ROOFING WORK</b>										
S-B5-Bq-7	Steel Purlin	Kg	764.90	6,310	0	5,699	4,826,519	0	4,359,165	9,185,684
S-B5-Bq-23	Facing Plate I	m2	42.00	0	0	26,500	0	0	1,113,000	1,113,000
S-B5-Bq-24	Facing Plate II	m2	13.00	0	0	29,000	0	0	377,000	377,000
S-B5-Bq-31	Steel Roof	m2	136.50	0	26,700	76,530	0	3,644,550	10,446,345	14,090,895
S-B5-Bq-30	Asphalt Sheet Water Proofing 5 mm	m2	13.50	0	14,070	23,110	0	189,945	311,985	501,930
Sub Total										25,268,509
<b>V. CONCRETE BLOCK WORK AND BRICKWORK</b>										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	1.36	0	16,610	368,140	0	22,590	500,670	523,260
S-B3-Bq-1	Brickwall/brickwork 1:3 1/2 1/2 brick thick	m3	9.84	0	6,960	336,310	0	68,486	3,309,290	3,377,777
Sub Total										3,901,037
<b>VI. PLASTER WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	136.88	0	900	9,100	0	123,192	1,245,608	1,368,800
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	163.56	0	400	7,200	0	65,424	1,177,632	1,243,056
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	195.31	0	1,200	10,000	0	234,372	1,953,100	2,187,472
S-B10-Bq-20	Ventilation Hole for garage	pieces	7.00	0	10	15,130	0	70	105,910	105,980
S-B6-Bq-8	Terracota	m2	17.40	0	9,660	36,550	0	168,084	635,970	804,054
Sub Total										5,709,362
<b>VII. DOORS AND WINDOW WORKS</b>										
S-B8-Bq-4	Aluminium awning	m	37.00	0	7,950	67,320	0	294,150	2,490,840	2,784,990
S-B8-Bq-30	Steel Frame	kg	55.22	7,133	0	5,742	393,884	0	317,073	710,958
S-B8-Bq-31	Steel Plate 0.5 mm	kg	129.81	0	2,430	11,034	0	315,438	1,432,324	1,747,762
S-B8-Bq-32	Steel Door Frame	kg	48.61	7,133	0	5,742	346,735	0	279,119	625,854
S-B8-Bq-33	Door Keys for Steel Door	pieces	2.00	0	15,600	45,100	0	31,200	90,200	121,400
S-B8-Bq-9	Hinges	pieces	1.00	0	10,920	37,650	0	10,920	37,650	48,570
S-B8-Bq-10	Door Hinge (125 mm)	pieces	9.00	0	1,320	15,950	0	11,880	143,550	155,430
Sub Total										6,194,963
<b>VIII. GLAZING WORK</b>										
S-B9-Bq-8	Floot Glass H = 5 mm, (Natural Colour)	m2	4.84	0	14,900	36,850	0	72,116	178,354	250,470
Sub Total										250,470
<b>IX. FLOOR WORK</b>										
S-B3-Bq-8	Concrete Plastering (for Floor)	m2	233.70	0	1,200	10,000	0	280,440	2,337,000	2,617,440
S-B6-Bq-5	Wall Base Mortar Fin w/ Waterproof Paint	m	31.80	0	190	1,390	0	6,042	44,202	50,244
Sub Total										2,667,684
<b>X. SANITAIR WORK</b>										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	50.00	0	0	36,700	0	0	1,835,000	1,835,000
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm (1"))	m	26.75	0	2,750	55,470	0	73,563	1,483,823	1,557,385
S-B7-Bq-20	Roof Drain	pieces	5.00	0	0	50,000	0	0	250,000	250,000
S-B7-Bq-8	Water Stop Valve	pieces	3.00	0	0	67,530	0	0	202,590	202,590
Sub Total										3,844,975
<b>XI. ELECTRICAL WORK</b>										
S-B11-Bq-32	T-Box	pieces	20.00	0	0	12,500	0	0	250,000	250,000
S-B11-Bq-9	Lighting Switch (Double)	pieces	3.00	0	0	10,440	0	0	31,320	31,320
S-B11-Bq-35	PVC Pipe D = 1.25	m	12.00	0	9,750	27,790	0	117,000	333,480	450,480
S-B11-Bq-37	Distribution Panel	pieces	1.00	0	0	300,000	0	0	300,000	300,000
S-B11-Bq-38	Outlet Socket 200 W	pieces	2.00	0	0	22,420	0	0	44,840	44,840
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	2.00	0	0	233,060	0	0	466,120	466,120
S-B11-Bq-1	Installation and Lighting 40W-1 FL	pieces	3.00	0	0	128,060	0	0	384,180	384,180
S-B11-Bq-58	NCB 2 A	pieces	2.00	0	0	51,310	0	0	102,620	102,620
S-B11-Bq-47	NCB 6 A	pieces	1.00	0	0	51,310	0	0	51,310	51,310
S-B11-Bq-48	Grounding Cable D = 6 mm	m	38.00	0	0	9,783	0	0	371,767	371,767
S-B11-Bq-59	Cable NYY 3 x 16 mm	m	40.00	0	0	55,173	0	0	2,206,933	2,206,933
S-B11-Bq-51	Cable NYM 3 x 2.5 mm	m	85.05	0	0	5,580	0	0	474,579	474,579
S-B11-Bq-52	Cable NYM 2 x 2.5 mm	m	22.00	0	0	5,983	0	0	131,633	131,633
Sub Total										5,265,782
<b>XII. PAINTING WORK</b>										
S-B9-Bq-1	Wall Painting	m2	358.64	0	1,430	8,570	0	512,855	3,073,545	3,586,400
S-B9-Bq-4	Steel Painting	m2	20.51	0	1,740	9,060	0	35,687	185,821	221,508
S-B9-Bq-9	Stairs/Steel Protection Painting	m2	77.28	0	80	7,690	0	6,182	594,283	600,466
Sub Total										4,408,374
Total Cost										143,916,334

Table 4.2.8 (4/5) COST CALCULATION OF HYDRO POWER STATION BUILDINGS

## CONSTRUCTION COST OF GUARD HOUSE

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total
				PR/C	IR/C	L/C	PR/C	IR/C	L/C	
<b>I. EXCAVATION, FILLING, AND GRADING WORK</b>										
S-B1-Bq-1	Earth Cut, 1 m depth	m3	22.68	0	0	16,000	0	0	362,880	362,880
S-B1-Bq-2	Earth Fill (Old)	m3	12.20	0	0	7,700	0	0	93,940	93,940
S-B1-Bq-4	Sand Fill	m3	3.03	0	1,620	41,800	0	4,909	126,654	131,563
S-B1-Bq-5	Sand Fill Under Foundation	m3	2.52	0	1,620	41,800	0	4,082	105,336	109,418
Sub Total										697,801
<b>II. FOUNDATION WORK</b>										
S-B2-Bq-1	Dry Stone Masonry	m3	3.67	0	2,900	96,000	0	10,643	352,320	362,963
S-B2-Bq-3	Stone Masonry 1:3:10	m3	7.35	0	9,800	166,600	0	72,030	1,224,510	1,296,540
S-B2-Bq-2	Brick block 1:3:10	m3	2.20	0	6,960	326,310	0	15,312	717,882	733,194
Sub Total										2,392,697
<b>III. REINFORCEMENT CONCRETE WORK</b>										
S-B4-Bq-12	Concrete K-250	m3	8.28	0	45,870	193,200	0	379,804	1,599,696	1,979,500
S-B4-Bq-7	Steel Bar Dia. 12 mm	Kg	1,074.38	0	1,203	9,128	0	1,292,479	9,806,941	11,099,420
S-B4-Bq-13	Scaffolding	m2	30.25	14,740	70	15,630	445,885	2,118	472,808	920,810
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	2.12	0	30,410	422,790	0	64,469	896,315	960,784
Sub Total										14,960,513
<b>IV. CONCRETE BLOCK WORK AND BRICKWORK</b>										
S-B3-Bq-2	Brickwall/brickwork 1:3 1/2 brick thick	m3	1.08	0	16,610	368,140	0	17,939	397,591	415,530
S-B3-Bq-1	Brickwall/brickwork 1:3:10 1/2 brick thick	m3	3.58	0	6,960	336,310	0	24,917	1,203,990	1,228,907
Sub Total										1,644,437
<b>VI. PLASTER WORK</b>										
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	22.40	0	900	9,100	0	20,160	203,840	224,000
S-B3-Bq-3	Mortar plastering 15 mm of thickness, 1:3:10	m2	36.64	0	400	7,200	0	14,656	263,808	278,464
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	5.58	0	1,200	10,000	0	6,696	55,800	62,496
S-B6-Bq-8	Terra-cotta	m2	11.70	0	9,660	36,550	0	113,022	427,635	540,657
Sub Total										1,105,617
<b>VII. DOORS AND WINDOW WORKS</b>										
S-B8-Bq-4	Aluminium awkening	m	33.70	0	7,950	67,320	0	267,915	2,268,684	2,536,599
S-B8-Bq-24	Teakwood Panel	m2	5.34	0	300	455,700	0	1,602	2,433,438	2,435,040
S-B8-Bq-6	Aluminium Door Frame	m	12.10	0	6,330	63,540	0	76,593	768,834	845,427
S-B8-Bq-7	Aluminium Sliding Window Frame	m	28.80	0	6,330	42,860	0	182,304	1,234,368	1,416,672
S-B8-Bq-8	Door Keys for Aluminium Door	pieces	2.00	0	15,600	48,570	0	31,200	97,140	128,340
S-B8-Bq-10	Door Hinges (125 mm)	pieces	2.00	0	1,320	15,950	0	2,640	31,900	34,540
S-B13-Bq-1	Ventilation Hole	Kg	15.00	7,133	0	5,742	106,995	0	86,130	193,125
S-B8-Bq-12	Al-Louvre	m2	0.48	0	10,209	150,040	0	4,896	72,019	76,915
S-B8-Bq-13	Door Stopper	pieces	1.00	0	12,480	41,290	0	12,480	41,290	53,770
Sub Total										7,720,428
<b>VIII. GLAZING WORK</b>										
S-B9-Bq-8	Float Glass H = 5 mm, (Natural Colour)	m2	6.24	0	14,900	36,850	0	92,976	229,944	322,920
Sub Total										322,920
<b>IX. INTERIOR FINISHING</b>										
S-B10-Bq-1	Fiber Cement Ceiling, 1200 x 1200 mm x 6 mm + Ceiling Frame	m2	12.25	0	2,220	85,170	0	27,195	1,043,333	1,070,528
S-B10-Bq-2	Wood Cornice	m	15.90	0	30	4,810	0	477	76,479	76,956
Sub Total										1,147,484
<b>X. TILE WORK</b>										
S-B6-Bq-3	Ceramic Floor Tile, 300 x300 mm	m2	10.05	0	9,660	36,550	0	97,083	367,328	464,411
S-B6-Bq-4	Ceramic Floor Tile, 300 x300 mm, (Nonslip Texture)	m2	18.00	0	9,660	36,550	0	173,880	657,900	831,780
S-B6-Bq-1	Ceramic Floor Tile, 200 x 200 mm	m2	8.79	0	9,660	36,550	0	84,911	321,275	406,186
S-B6-Bq-2	Ceramic Floor Tile, 200 x 200 mm (Nonslip Texture)	m2	1.54	0	9,660	36,550	0	14,876	56,287	71,163
S-B9-Bq-7	Float Glass H = 100 mm, Rayband (For Wall base)	m	9.40	0	2,950	8,280	0	27,730	77,832	105,562
Sub Total										1,879,102
<b>XII. SANITAIR WORK</b>										
S-B7-Bq-1	Water Supply Installation (PVC Pipes D= 19.05 mm)	m	24.80	0	0	36,700	0	0	910,160	910,160
S-B7-Bq-2	Waste Water Installation (PVC Pipes D= 110 mm)	m	23.00	0	2,750	55,470	0	63,250	1,275,810	1,339,060
S-B7-Bq-5	Closet	pieces	1.00	0	730	86,410	0	730	86,410	87,140
S-B7-Bq-11	Floor Drain	pieces	1.00	0	0	60,000	0	0	60,000	60,000
S-B7-Bq-20	Roof Drain	pieces	4.00	0	0	50,000	0	0	200,000	200,000
S-B7-Bq-3	Septic tank	unit	1.00	0	49,390	1,289,080	0	49,390	1,289,080	1,338,470
S-B7-Bq-8	Water Stop Valve	pieces	2.00	0	0	67,530	0	0	135,060	135,060
S-B7-Bq-9	Bath Tub (Watertank)	pieces	1.00	0	200	140,170	0	200	140,170	140,370
Sub Total										4,210,260
<b>XIII. ELECTRICAL WORK</b>										
S-B11-Bq-32	T-Dos	pieces	12.00	0	0	12,500	0	0	150,000	150,000
S-B11-Bq-9	Lighting Switch (Double)	pieces	2.00	0	0	10,440	0	0	20,880	20,880
S-B11-Bq-35	PVC Pipe D = 1.25	m	10.00	0	9,750	27,750	0	97,500	277,900	375,400
S-B11-Bq-37	Distribution Panel	pieces	1.00	0	0	300,000	0	0	300,000	300,000
S-B11-Bq-38	Outlet Socket 200 W	pieces	1.00	0	0	22,420	0	0	22,420	22,420
S-B11-Bq-34	Wall Switch	pieces	1.00	0	0	91,440	0	0	91,440	91,440
S-B11-Bq-2	Installation and Lighting 40W-2 FL	pieces	1.00	0	0	233,060	0	0	233,060	233,060
S-B11-Bq-5	Installation and Lighting 15W-1 FL	pieces	5.00	0	0	103,060	0	0	515,300	515,300
S-B11-Bq-60	NCB 10 A	pieces	1.00	0	0	51,310	0	0	51,310	51,310
S-B11-Bq-47	NCB 6 A	pieces	2.00	0	0	51,310	0	0	102,620	102,620
S-B11-Bq-29	Ground Cable D = 12 mm	m	8.00	0	0	32,063	0	0	256,507	256,507
S-B11-Bq-59	Cable NYY 3 x 16 mm	m	62.50	0	0	55,173	0	0	3,448,333	3,448,333
S-B11-Bq-51	Cable NYM 3 x 2.5 mm	m	23.00	0	0	5,580	0	0	128,340	128,340
S-B11-Bq-52	Cable NYM 2 x 2.5 mm	m	10.00	0	0	5,983	0	0	59,833	59,833
Sub Total										5,755,443
<b>XIV. PAINTING WORK</b>										
S-B9-Bq-1	Wall Painting	m2	123.40	0	1,430	8,570	0	176,462	1,057,538	1,234,000
S-B9-Bq-15	Wood polynar	m2	6.60	0	200	20,800	0	1,320	137,280	138,600
S-B9-Bq-3	Ceiling Painting	m2	12.25	0	1,440	8,660	0	17,640	106,085	123,725
Sub Total										1,496,325
<b>XV. FURNITURE</b>										
S-B12-Bq-3	Office Table	unit	1.00	0	0	500,000	0	0	500,000	500,000
S-B12-Bq-19	Office Chair	unit	3.00	0	0	200,000	0	0	600,000	600,000
S-B12-Bq-10	Sofa	unit	1.00	0	0	833,333	0	0	833,333	833,333
Sub Total										1,933,333
Total Cost										45,266,369

**Table 4.2.8 (5/5) COST CALCULATION OF HYDRO POWER STATION BUILDINGS**

**CONSTRUCTION COST OF EXTERNAL WORK**

ID No.	Item	Unit	Quantity	Unit Cost			Cost			Total	
				PF/C	IF/C	L/C	PF/C	IF/C	L/C		
<b>I. TEMPORARY WORK</b>											
S-B14-Bq-1	Uitzet & Broomplank	m2	192.25	0	0	3,500	0	0	672,875	672,875	
S-B14-Bq-2	Water & Electricity for Work	L.S	1.00	0	0	3,750,000	0	0	3,750,000	3,750,000	
S-B14-Bq-3	Administration & Documentation	L.S	1.00	0	0	2,500,000	0	0	2,500,000	2,500,000	
										Sub Total	6,922,875
<b>II. EXCAVATION, FILLING AND GRADING WORK</b>											
S-B1-Bq-1	Earth Cut, 1 m depth	m3	9.02	0	0	16,000	0	0	144,320	144,320	
S-B1-Bq-3	Earth Fill (New)	m3	17.94	502	495	17,061	9,007	8,888	306,076	323,971	
S-B1-Bq-4	Sand Fill	m3	7.20	0	1,620	41,800	0	11,664	300,960	312,624	
										Sub Total	780,915
<b>III. FOUNDATION WORK</b>											
S-B4-Bq-2	Light Concrete (Concrete 1:3:5)	m3	0.14	0	30,410	422,790	0	4,257	59,191	63,448	
S-B2-Bq-2	Brick block 1:3:10	m3	4.44	0	6,960	326,310	0	30,902	1,448,816	1,479,719	
S-B3-Bq-4	Mortar plastering 15 mm of thickness, 1:3	m2	9.90	0	900	9,100	0	8,910	90,090	99,000	
S-B9-Bq-1	Wall Painting	m2	9.90	0	1,430	8,570	0	14,157	84,843	99,000	
										Sub Total	1,642,167
<b>IV. FENCE WORK</b>											
S-B13-Bq-4	Gate	m	8.60	0	0	65,000	0	0	559,000	559,000	
S-B13-Bq-3	Steel Fence	m	11.30	58,367	26,700	145,667	639,543	301,710	1,646,033	2,607,287	
										Sub Total	3,166,287
<b>V. SANITAIR WORK</b>											
S-B7-Bq-13	Drainage U-300	m	218.50	0	2,400	36,500	0	524,400	7,975,250	8,499,650	
S-B7-Bq-21	Drainage O 300	m	20.00	0	5,200	41,900	0	104,000	838,000	942,000	
S-B7-Bq-12	Drainage Box	pieces	16.00	0	12,320	134,950	0	197,120	2,159,200	2,356,320	
S-B7-Bq-22	Stainless Steel Watertank 2000 lt	unit	1.00	0	0	2,000,000	0	0	2,000,000	2,000,000	
S-B4-Bq-14	Concrete for Drainage O-300	m3	0.67	100	197,375	2,410,900	67	132,241	1,615,303	1,747,611	
S-B4-Bq-15	Concrete Tower for Watertank	m3	3.45	100	205,945	2,136,400	345	710,510	7,370,580	8,081,435	
S-B4-Bq-4	Steel Bar	Kg	1,766.90	0	3,350	10,820	0	5,919,115	19,117,858	25,036,973	
S-B3-Bq-5	Mortar plastering 15 mm of thickness, 1:2	m2	62.97	0	1,200	10,000	0	75,564	629,700	705,264	
S-B9-Bq-1	Wall Painting	m2	62.97	0	1,430	8,570	0	90,047	539,653	629,700	
										Sub Total	49,998,954
<b>VI. ELECTRICAL WORK</b>											
S-B11-Bq-32	T-Dos	pieces	15.00	0	0	12,500	0	0	187,500	187,500	
S-B11-Bq-61	FL 2 x 40 W + Pole	pieces	12.00	112,820	1,540	386,470	1,353,840	18,480	4,637,640	6,009,960	
S-B11-Bq-51	Cable NYM 3 x 2.5 mm	m	260.00	0	0	5,580	0	0	1,450,800	1,450,800	
										Sub Total	7,648,260
<b>VII. LANDSCAPING</b>											
S-B15-Bq-1	Paving Kamsteen (Paving Border)	m	150.50	0	0	35,900	0	0	5,402,950	5,402,950	
S-B15-Bq-2	Gravel	m3	2.99	0	1,360	31,260	0	4,066	93,467	97,534	
S-B15-Bq-8	Plantation 4	m2	944.49	0	0	15,000	0	0	14,167,350	14,167,350	
										Sub Total	19,667,834
										Total Cost	89,827,291



Table 5.1.2 ANNUAL CONSTRUCTION WORKING RATE BY CONSDTRUCTION SCHEDULE OF PACKAGE-2

Work Item	Unit	Quantity	2nd year												3rd year												4th year											
			1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1. Preparation Works																																						
Access Road	L.S	1	<div><div>100 %</div></div>																																			
2. Pedestrian Bridge																																						
2-1 Substructure																																						
Excavation	m <sup>3</sup>	1,280	<div><div>100 %</div></div>																																			
Scaffolding	L.S	1	<div><div>100 %</div></div>																																			
Concrete	m <sup>3</sup>	163	<div><div>87 %</div></div>																																			
Wet Stone Masonry	m <sup>3</sup>	150	<div><div>25 %</div></div>																																			
Backfilling and Embankment	m <sup>3</sup>	967	<div><div>25 %</div></div>																																			
2-2 Superstructure																																						
Support	L.S	1	<div><div>100 %</div></div>																																			
Concrete	m <sup>3</sup>	104	<div><div>100 %</div></div>																																			
Bearing Shoe Installing	nos.	16	<div><div>100 %</div></div>																																			
2-3 Gate Reconstruction																																						
Removal			<div><div>100 %</div></div>																																			
Reconstruction			<div><div>100 %</div></div>																																			
3. Dam Management Complex																																						
Administration Building	L.S	1	<div><div>100 %</div></div>																																			
Staff House	L.S	5	<div><div>70 %</div></div>																																			
Mushola	L.S	1	<div><div>67 %</div></div>																																			
External Works	L.S	1	<div><div>43 %</div></div>																																			





Table 5.2.1 (1/4) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

Component: Construction of Jatibarang Multipurpose Dam

Package-1: Jatibarang Multipurpose Dam including Appurtenant Structures

ID No.	BQ Item		Unit	Quantity	Unit Cost				Cost			
					PF/C	IF/C	L/C	Total	PF/C	IF/C	L/C	Total
JD-P1-Bq-1	A.	General										
JD-P1-Bq-2	A.1	Mobilisation and Demobilisation	L.S.	1	444,683,400	9,513,900	348,597,800	802,795,100	444,683,400	9,513,900	348,597,800	802,795,100
JD-P1-Bq-3	A.2	Establishment	L.S.	1	7,006,952,496	853,756,602	5,544,010,068	13,404,719,166	7,006,952,496	853,756,602	5,544,010,068	13,404,719,166
JD-P1-Bq-4	A.3	Drawings	L.S.	1	24,855,400	3,000,000	80,256,700	108,112,100	24,855,400	3,000,000	80,256,700	108,112,100
JD-P1-Bq-5	A.4	Transport Facilities										
JD-P1-Bq-6	A.4.1	Supply, operation and maintenance of new four-door four-wheel drive station jeep	month	150	4,572,388	75,323	2,456,045	7,103,757	685,858,250	11,298,500	368,406,750	1,065,563,500
JD-P1-Bq-7	A.4.2	Supply, operation and maintenance of new station wagon	month	80	1,368,886	31,053	1,391,463	2,791,403	109,510,867	2,484,267	111,317,067	223,312,200
JD-P1-Bq-8	A.4.3	Supply, operation and maintenance of new motor cycle with capacity greater than 100 cc	month	160	335,802	25,613	955,325	1,316,740	53,728,267	4,098,133	152,852,000	210,678,400
JD-P1-Bq-9	B.	Water Control										
JD-P1-Bq-10	B.1	Water Control	L.S.	1	615,848,300	10,886,400	333,325,300	960,060,000	615,848,300	10,886,400	333,325,300	960,060,000
JD-P1-Bq-11	C.	Surface Excavation and Earth Works										
JD-P1-Bq-12	C.1	Clearing and Grubbing :										
JD-P1-Bq-13	C.1.1	for Areas to be Excavated	m <sup>2</sup>	320,000	593	9	683	1,285	189,760,000	2,880,000	218,560,000	411,200,000
JD-P1-Bq-14	C.1.2	for Reservoir	ha	70	2,239,000	28,000	2,787,000	5,054,000	156,730,000	1,960,000	195,090,000	353,780,000
JD-P1-Bq-15	C.2	Stripping Top Soil	m <sup>2</sup>	320,000	5,560	110	3,720	9,390	1,779,200,000	35,200,000	1,190,400,000	3,004,800,000
JD-P1-Bq-16	C.3	Surface Excavation :										
JD-P1-Bq-17	C.3.1	for Diversion Facilities (Cofferdam, Upstream and Downstream Portals)	m <sup>3</sup>	8,000	35,370	420	16,150	51,940	282,960,000	3,360,000	129,200,000	415,520,000
JD-P1-Bq-18	C.3.2	for Embankment Dam	m <sup>3</sup>	174,000	25,140	440	16,070	41,650	4,374,360,000	76,560,000	2,796,180,000	7,247,100,000
JD-P1-Bq-19	C.3.3	for Gallery	m <sup>3</sup>	7,000	70,230	680	30,900	101,810	491,610,000	4,760,000	216,300,000	712,670,000
JD-P1-Bq-20	C.3.4	for Spillway	m <sup>3</sup>	453,500	27,200	500	17,300	45,000	12,335,200,000	226,750,000	7,845,550,000	20,407,500,000
JD-P1-Bq-21	C.3.5	for Inclined Intake Structure	m <sup>3</sup>	11,000	21,440	400	14,510	36,350	235,840,000	4,400,000	159,610,000	399,850,000
JD-P1-Bq-22	C.3.6	for Hydropower Station	m <sup>3</sup>	400	22,650	310	13,630	36,590	9,060,000	124,000	5,452,000	14,636,000
JD-P1-Bq-23	C.3.7	for Dam management Complex	m <sup>3</sup>	36,000	19,000	370	12,610	31,980	684,000,000	13,320,000	453,960,000	1,151,280,000
JD-P1-Bq-24	C.4	Exploratory Trench Excavation in Common	m <sup>3</sup>	6,000	12,680	140	7,860	20,680	76,080,000	840,000	47,160,000	124,080,000
JD-P1-Bq-25	C.5	Exploratory Trench Excavation in Rock	m <sup>3</sup>	500	20,970	230	13,060	34,260	10,485,000	115,000	6,530,000	17,130,000
JD-P1-Bq-26	C.6	Construction of Common Fill or Backfill	m <sup>3</sup>	22,000	16,980	320	11,810	29,110	373,560,000	7,040,000	259,820,000	640,420,000
JD-P1-Bq-27	C.7	Construction of Backfill Gravel or Gravel Bedding (Crushed Stone)	m <sup>3</sup>	3,000	15,710	3,250	69,940	88,900	47,130,000	9,750,000	209,820,000	266,700,000
JD-P1-Bq-28	C.8	Clearing Surfaces in Exposed Foundation for Inspection	m <sup>2</sup>	6,000	36,700	700	59,690	97,090	220,200,000	4,200,000	358,140,000	582,540,000
JD-P1-Bq-29	C.9	Construction of Random Fill for Temporary Cofferdam	m <sup>3</sup>	24,000	14,410	330	10,050	24,790	345,840,000	7,920,000	241,200,000	594,960,000
JD-P1-Bq-30	D.	Tunneling										
JD-P1-Bq-31	D.1	Underground Excavation :										
JD-P1-Bq-32	D.1.1	for Diversion Tunnel	m <sup>3</sup>	18,300	137,550	380	167,710	305,640	2,517,165,000	6,954,000	3,069,093,000	5,593,212,000
JD-P1-Bq-33	D.1.2	for Outlet Tunnel	m <sup>3</sup>	2,300	165,050	390	194,910	360,350	379,615,000	897,000	448,293,000	828,805,000
JD-P1-Bq-34	D.2	Furnishing and Installing Steel Rib Support and Accessories :										
JD-P1-Bq-35	D.2.1	for Diversion Tunnel	tonne	200	7,067,300	0	551,100	7,618,400	1,413,460,000	0	110,220,000	1,523,680,000
JD-P1-Bq-36	D.2.2	for Outlet Tunnel	tonne	37	6,946,600	0	541,700	7,488,300	257,024,200	0	20,042,900	277,067,100
JD-P1-Bq-37	D.3	Production and Placing Shotcrete Lining :										
JD-P1-Bq-38	D.3.1	for Diversion Tunnel	m <sup>3</sup>	1,800	1,228,590	138,350	1,024,330	2,391,270	2,211,462,000	249,030,000	1,843,794,000	4,304,286,000
JD-P1-Bq-39	D.3.2	for Outlet Tunnel	m <sup>3</sup>	360	1,424,310	31,650	799,100	2,255,060	512,751,600	11,394,000	287,676,000	811,821,600
JD-P1-Bq-40	D.4	Furnishing and Installing Steel Mesh Reinforcement :										
JD-P1-Bq-41	D.4.1	for Diversion Tunnel	kg	11,400	1,360	1,830	4,520	7,710	15,504,000	20,862,000	51,528,000	87,894,000
JD-P1-Bq-42	D.4.2	for Outlet Tunnel	kg	5,400	1,360	1,830	4,520	7,710	7,344,000	9,882,000	24,408,000	41,634,000
JD-P1-Bq-43	D.5	Furnishing and Installing Rock Bolts :										
JD-P1-Bq-44	D.5.1	for Diversion Tunnel (25mm dia.)	m	17,400	119,290	380	51,180	170,850	2,075,646,000	6,612,000	890,532,000	2,972,790,000
JD-P1-Bq-45	D.5.3	for Outlet Tunnel (22mm dia.)	m	1,200	48,520	440	16,810	65,770	58,224,000	528,000	20,172,000	78,924,000
JD-P1-Bq-46	E.	Drilling and Grouting										
JD-P1-Bq-47	E.1	Core Drilling (66mm dia.) :										
JD-P1-Bq-48	E.1.1	from within Gallery	m	1,200	571,650	290	186,790	758,730	685,980,000	348,000	224,148,000	910,476,000
JD-P1-Bq-49	E.1.2	from Surface	m	4,900	571,760	290	187,040	759,090	2,801,624,000	1,421,000	916,496,000	3,719,541,000
JD-P1-Bq-50	E.2	Rotary Drilling Holes for Grouting (46mm dia.) :										
JD-P1-Bq-51	E.2.1	from within Gallery	m	5,200	171,110	140	46,430	217,680	889,772,000	728,000	241,436,000	1,131,936,000
JD-P1-Bq-52	E.2.2	from Surface	m	14,400	171,230	140	46,410	217,780	2,465,712,000	2,016,000	668,304,000	3,136,032,000
JD-P1-Bq-53	E.2.3	from Tunnels	m	1,100	173,050	150	45,970	219,170	190,355,000	165,000	50,567,000	241,087,000
JD-P1-Bq-54	E.3	Drill set-up for drilling grout hole	No.	4,100	55,160	1,300	63,320	119,780	226,156,000	5,330,000	259,612,000	491,098,000
JD-P1-Bq-55	E.4	Wash and Water pressure testing	No.	4,100	232,290	230	127,260	359,780	952,389,000	943,000	521,766,000	1,475,098,000
JD-P1-Bq-56	E.5	Cement used in Pressure Grouting	tonne	410	7,266,000	113,500	3,638,000	11,017,500	2,979,060,000	46,535,000	1,491,580,000	4,517,175,000
JD-P1-Bq-57	E.6	Fine aggregate used in Pressure Grouting	tonne	2	6,630	1,490	29,400	37,520	13,260	2,980	58,800	75,040
JD-P1-Bq-58	E.7	Hook-up to Holes and Connections for Grouting	No.	4,100	1,100	0	5,120	6,220	4,510,000	0	20,992,000	25,502,000
JD-P1-Bq-59	E.8	Casing Pipe for Pressure Grouting	tonne	10	6,830,250	0	2,255,000	9,085,250	68,302,500	0	22,550,000	90,852,500
JD-P1-Bq-60	F.	Embankment Construction										
JD-P1-Bq-61	F.1	Dam Embankment Impervious Zone including Contact Slurry and Contact Material	m <sup>3</sup>	119,000	75,068	1,496	56,335	132,899	8,933,092,000	178,024,000	6,703,865,000	15,814,981,000
JD-P1-Bq-62	F.2	Dam Embankment in Semi-pervious Zone :										
JD-P1-Bq-63	F.2.1	in Upstream Semi-pervious Zone	m <sup>3</sup>	33,000	97,935	1,953	69,738	169,626	3,231,855,000	64,449,000	2,301,354,000	5,597,658,000
JD-P1-Bq-64	F.2.2	in Downstream Fine Semi-pervious Zone	m <sup>3</sup>	24,000	62,884	1,757	55,056	119,697	1,509,216,000	42,168,000	1,321,344,000	2,872,728,000
JD-P1-Bq-65	F.2.3	in Downstream Coarse Semi-pervious Zone	m <sup>3</sup>	25,000	108,080	1,801	69,867	179,748	2,702,000,000	45,025,000	1,746,675,000	4,493,700,000
JD-P1-Bq-66	F.3	Dam Embankment Pervious Zone :										
JD-P1-Bq-67	F.3.1	in Inner Pervious Zone	m <sup>3</sup>	96,000	54,449	1,076	36,724	92,249	5,227,104,000	103,296,000	3,525,504,000	8,855,904,000
JD-P1-Bq-68	F.3.2	in Outer Pervious Zone including Surface Treatment	m <sup>3</sup>	495,000	62,284	1,257	42,089	105,630	30,830,580,000	622,215,000	20,834,055,000	52,286,850,000

Table 5.2.1 (2/4) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

ID No.	BQ Item		Unit	Quantity	Unit Cost				Cost			
					PF/C	IF/C	I/C	Total	PF/C	IF/C	I/C	Total
JD-P1-Bq-69	F.3.3	in Riprap Zone	m <sup>3</sup>	10,000	81,593	1,502	54,940	138,035	815,930,000	15,020,000	549,400,000	1,380,350,000
JD-P1-Bq-70	F.4	Special Compaction for Dam Embankment :										
JD-P1-Bq-71	F.4.1	in Impervious Zone Embankment	m <sup>3</sup>	1,600	82,140	1,630	72,610	156,380	131,424,000	2,608,000	116,176,000	250,208,000
JD-P1-Bq-72	F.4.2	in Upstream and Downstream Semi-pervious Zone	m <sup>3</sup>	3,000	60,990	1,780	54,680	117,450	182,970,000	5,340,000	164,040,000	352,350,000
JD-P1-Bq-73	G.	Protection and Support of Excavation										
JD-P1-Bq-74	G.1	Construction of Wet Stone Masonry	m <sup>3</sup>	500	47,310	15,510	204,920	267,740	23,655,000	7,755,000	102,460,000	133,870,000
JD-P1-Bq-75	G.2	Construction of Stone Pitched Slope Protection	m <sup>3</sup>	300	51,610	16,920	223,550	292,080	15,483,000	5,076,000	67,065,000	87,624,000
JD-P1-Bq-76	G.3	Construction of Cobble Stone Foundation	m <sup>3</sup>	200	15,340	2,120	45,130	62,590	3,068,000	424,000	9,026,000	12,518,000
JD-P1-Bq-77	G.4	Construction of Mat Gabions	m <sup>3</sup>	100	666,570	3,060	134,750	804,380	66,657,000	306,000	13,475,000	80,438,000
JD-P1-Bq-78	G.5	Shotcrete Concrete in Surface Excavation including Drain Pipe and Gravel; 10 cm in Thickness	m <sup>2</sup>	13,000	35,220	10,270	67,930	113,420	457,860,000	133,510,000	883,090,000	1,474,460,000
JD-P1-Bq-79	G.6	Furnishing and Installing Steel Mesh Reinforcement in Surface Excavation	kg	34,000	1,120	0	5,210	6,330	38,080,000	0	177,140,000	215,220,000
JD-P1-Bq-80	G.7	Furnishing and Placing Full Face Sodding and Strip Sodding including Maintenance Watering	m <sup>2</sup>	35,000	2,600	0	12,110	14,710	91,600,000	0	423,850,000	514,850,000
JD-P1-Bq-81	G.8	Furnishing and Installing Grouted Anchor Bar including Drilling and Grouting; 25 mm in Diameter	m	12,500	55,290	12,160	46,320	113,770	691,125,000	152,000,000	579,000,000	1,422,125,000
JD-P1-Bq-82	H.	Drainage										
JD-P1-Bq-83	H.1	Construction of Surface Drains :										
JD-P1-Bq-84	H.1.1	Type 1-1 (Wet Stone Masonry)	m	2,700	19,050	8,820	107,090	134,960	51,435,000	23,814,000	289,143,000	364,392,000
JD-P1-Bq-85	H.1.2	Type 1-2 (Wet Stone Masonry)	m	2,700	13,070	6,420	73,090	92,580	35,289,000	17,334,000	197,343,000	249,966,000
JD-P1-Bq-86	H.1.3	Type 2-1 (Wet Stone Masonry) with Concrete Cover	m	80	148,440	63,230	840,110	1,051,780	11,875,200	5,058,400	67,208,800	84,142,400
JD-P1-Bq-87	H.1.4	Type 2-2 (Wet Stone Masonry) with Grating Cover	m	50	1,531,600	26,950	1,410,760	2,969,310	76,580,000	1,347,500	70,538,000	148,465,500
JD-P1-Bq-88	H.1.5	Type 3-1 (Reinforced Concrete)	m	420	20,860	24,000	73,180	118,040	8,761,200	10,080,000	30,735,600	49,576,800
JD-P1-Bq-89	H.1.6	Type 3-2 (Reinforced Concrete) with Grating Cover	m	30	288,110	24,000	240,740	552,850	8,643,300	720,000	7,222,200	16,585,500
JD-P1-Bq-90	H.2	Construction of Catch Basin (Wet Stone Masonry)	m <sup>3</sup>	50	52,180	25,470	292,110	369,760	2,609,000	1,273,500	14,605,500	18,488,000
JD-P1-Bq-91	I.	Concrete Production and Concrete Construction										
JD-P1-Bq-92	I.1	Furnishing and Placing PVC Waterstop; 300 mm in Width	m	4,500	95,760	0	16,070	111,830	430,920,000	0	72,315,000	503,235,000
JD-P1-Bq-93	I.2	Furnishing and Installing PVC pipe drains 50 mm dia. :										
JD-P1-Bq-94	I.2.1	50 mm in Diameter as Weephole	m	100	7,590	2,600	42,870	53,060	759,000	260,000	4,287,000	5,306,000
JD-P1-Bq-95	I.2.2	100 mm in Diameter for Bridge	m	15	3,300	4,240	15,830	23,370	49,500	63,600	237,450	350,550
JD-P1-Bq-96	I.3	Furnishing and Installing Perforated PVC Pipe 250 mm dia.	m	900	43,820	58,500	145,670	247,990	39,438,000	52,650,000	131,103,000	223,191,000
JD-P1-Bq-97	I.4	Furnishing and Installing Perforated PVC Pipe 200 mm dia.	m	300	17,379	23,018	57,965	98,362	5,213,700	6,905,400	17,389,500	29,508,600
JD-P1-Bq-98	I.5	Furnishing and Placing Joint Filler or Joint Sealant :										
JD-P1-Bq-99	I.5.1	Elastic Joint Filler; 10 mm in Thickness	m <sup>2</sup>	350	7,119	9,075	24,096	40,290	2,491,650	3,176,250	8,433,600	14,101,500
JD-P1-Bq-100	I.5.2	Polysulphide Mastic Joint Sealant	liter	600	319,410	0	73,420	392,830	191,646,000	0	44,052,000	235,698,000
JD-P1-Bq-101	I.5.3	Bitumen-Rubber Mastic Joint Filler (IGAS or equivalent)	liter	6,400	175,880	0	27,200	203,080	1,125,632,000	0	174,080,000	1,299,712,000
JD-P1-Bq-102	I.6	Furnishing and Installing Deformed Reinforcement Bars :										
JD-P1-Bq-103	I.6.1	in Diversion Tunnel	tonne	290	1,430,200	3,090,000	3,574,640	8,094,840	414,758,000	896,100,000	1,036,645,600	2,347,503,600
JD-P1-Bq-104	I.6.2	in Spillway	tonne	500	1,430,200	3,090,000	3,574,640	8,094,840	715,100,000	1,545,000,000	1,787,320,000	4,047,420,000
JD-P1-Bq-105	I.6.3	in Gallery	tonne	260	1,430,200	3,090,000	3,574,640	8,094,840	371,852,000	803,400,000	929,406,400	2,104,658,400
JD-P1-Bq-106	I.6.4	in Hydropower Station	tonne	140	1,430,200	3,090,000	3,574,640	8,094,840	200,228,000	432,600,000	500,449,600	1,133,277,600
JD-P1-Bq-107	I.6.5	in Other Structures	tonne	100	1,430,200	3,090,000	3,574,640	8,094,840	143,020,000	309,000,000	357,464,000	809,484,000
JD-P1-Bq-108	I.7	Furnishing and Placing Dowel Bars 25mm dia. including PVC sleeve	tonne	3	1,854,230	3,404,400	5,236,210	10,494,840	5,562,690	10,213,200	15,708,630	31,484,520
JD-P1-Bq-109	I.8	Furnishing and Placing Metal Seals	m	40	14,240	0	2,890	17,130	569,600	0	115,600	685,200
JD-P1-Bq-110	I.9	Production and Construction of Concrete Type A for Diversion Tunnel Lining	m <sup>3</sup>	6,800	441,905	102,735	502,762	1,047,402	3,004,954,000	698,598,000	3,418,781,600	7,122,333,600
JD-P1-Bq-111	I.10	Production and Construction of Concrete Type B :										
JD-P1-Bq-112	I.10.1	in Gallery and Entrance	m <sup>3</sup>	5,700	247,040	40,480	315,540	603,060	1,408,128,000	230,736,000	1,798,578,000	3,437,442,000
JD-P1-Bq-113	I.10.2	in Inclined Intake Structure	m <sup>3</sup>	900	237,300	40,190	291,980	569,470	213,570,000	36,171,000	262,782,000	512,523,000
JD-P1-Bq-114	I.10.3	in Hydropower Station	m <sup>3</sup>	4,500	243,120	40,370	310,670	594,160	1,094,040,000	181,665,000	1,398,015,000	2,673,720,000
JD-P1-Bq-115	I.10.4	in Other Structures	m <sup>3</sup>	50	282,720	40,820	357,950	681,490	14,136,000	2,041,000	17,897,500	34,074,500
JD-P1-Bq-116	I.11	Production and Construction of Concrete Type C	m <sup>3</sup>	120	243,770	40,350	310,950	595,070	29,252,400	4,842,000	37,314,000	71,408,400
JD-P1-Bq-117	I.12	Production and Construction of Concrete Type D :										
JD-P1-Bq-118	I.12.1	in Spillway	m <sup>3</sup>	52,000	220,850	35,590	257,330	513,770	11,484,200,000	1,850,680,000	13,381,160,000	26,716,040,000
JD-P1-Bq-119	I.12.2	in Outlet Tunnel	m <sup>3</sup>	1,400	207,230	35,450	237,070	479,750	290,122,000	49,630,000	331,898,000	671,650,000
JD-P1-Bq-120	I.12.3	in Concrete Plug in Diversion Tunnel	m <sup>3</sup>	1,000	661,290	56,120	741,410	1,458,820	661,290,000	56,120,000	741,410,000	1,458,820,000
JD-P1-Bq-121	I.12.4	in Adit	m <sup>3</sup>	100	271,360	36,350	338,030	645,740	27,136,000	3,635,000	33,803,000	64,574,000
JD-P1-Bq-122	I.12.5	in Other Structures	m <sup>3</sup>	2,500	226,640	35,580	262,170	524,390	566,600,000	88,950,000	655,425,000	1,310,975,000
JD-P1-Bq-123	I.13	Production and Construction of Concrete Type E :										
JD-P1-Bq-124	I.13.1	in Structures	m <sup>3</sup>	1,000	260,260	33,410	320,200	613,870	260,260,000	33,410,000	320,200,000	613,870,000
JD-P1-Bq-125	I.13.2	Backfill Concrete in Seams, Defects and Faults	m <sup>3</sup>	200	194,280	32,360	228,130	454,770	38,856,000	6,472,000	45,626,000	90,954,000
JD-P1-Bq-126	I.14	Furnishing and Installing Precast Prestressed Concrete Beams Spillway Bridge including Tensioning and Erection	L.S.	1	168,914,300	17,184,300	208,102,100	394,200,700	168,914,300	17,184,300	208,102,100	394,200,700
JD-P1-Bq-127	I.15	Furnishing and Installing Precast Concrete Diaphragms for Spillway Bridge including Tensioning and Erection	L.S.	1	16,435,200	2,355,700	13,204,100	31,995,000	16,435,200	2,355,700	13,204,100	31,995,000
JD-P1-Bq-128	I.16	Furnishing and Installing Precast Concrete Panels for Spillway Bridge including Erection	L.S.	1	1,795,400	2,188,000	8,020,500	12,003,900	1,795,400	2,188,000	8,020,500	12,003,900
JD-P1-Bq-129	J.	Road Construction										
JD-P1-Bq-130	J.1	Excavation for Road Construction	m <sup>3</sup>	152,000	19,950	384	15,587	35,921	3,032,445,600	58,383,200	2,369,148,000	5,459,976,800
JD-P1-Bq-131	J.2	Placing and Compacting Suitable Fill for Common Embankment	m <sup>3</sup>	6,100	16,540	320	13,460	30,320	100,894,000	1,952,000	82,106,000	184,952,000
JD-P1-Bq-132	J.3	Production and Construction of Crushed Stone Sub-Base Course	m <sup>3</sup>	7,300	133,310	2,220	81,560	217,090	973,163,000	16,206,000	595,388,000	1,584,757,000
JD-P1-Bq-133	J.4	Production and Construction of Penetration Macadam Base Course	m <sup>3</sup>	2,000	144,750	27,870	141,020	289,500,000	55,740,000	282,040,000	627,280,000	1,184,820,000
JD-P1-Bq-134	J.5	Production and Construction of Hot Asphalt Mix Surface Course; Minimum 50 mm thick	m <sup>2</sup>	17,000	33,710	2,010	29,730	65,450	573,070,000	34,170,000	505,410,000	1,112,650,000
JD-P1-Bq-135	J.6	Production and Construction of Concrete Pavement; 150 mm thick	m <sup>2</sup>	1,700	78,480	98,310	152,470	329,260	133,416,000	167,127,000	259,199,000	559,742,000
JD-P1-Bq-136	J.7	Furnishing and Installing Guard Rail	m	1,000	123,810	5,710	129,770	259,290	123,810,000	5,710,000	129,770,000	259,290,000

Table 5.2.1 (3/4) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

ID No.	BQ Item		Unit	Quantity	Unit Cost				Cost			
					PF/C	IF/C	L/C	Total	PF/C	IF/C	L/C	Total
JD-P1-Bq-137	K.	Furnishing and Installing Metalwork										
JD-P1-Bq-138	K.1	Miscellaneous Metalwork (Galvanized)	kg	7,000	10,070	0	10,740	20,810	70,490,000	0	75,180,000	145,670,000
JD-P1-Bq-139	K.2	Miscellaneous Metalwork (Painted)	kg	4,500	9,490	50	7,150	16,690	42,705,000	225,000	32,175,000	75,105,000
JD-P1-Bq-140	K.3	Miscellaneous Metalwork (Stainless Steel)	kg	500	31,770	0	9,560	41,330	15,885,000	0	4,780,000	20,665,000
JD-P1-Bq-141	K.4	Miscellaneous Metal Work in Underground Works :										
JD-P1-Bq-142	K.4.1	for Diversion Tunnel Plugs (Grout and Cooling Pipes)	L.S.	1	5,867,000	50,400	1,664,900	7,582,300	5,867,000	50,400	1,664,900	7,582,300
JD-P1-Bq-143	K.4.2	for Adit Concrete Filling (Grout Pipes)	L.S.	1	10,457,800	89,200	3,265,700	13,812,700	10,457,800	89,200	3,265,700	13,812,700
JD-P1-Bq-144	L.	Water Control Plant										
JD-P1-Bq-145	L.1	Furnishing and Installing Water Control Plant for Outlet Facilities :										
JD-P1-Bq-146	L.1.1	Bulkhead Gate; B 2.0 m x H 2.0 m including Gate Guide, Hoist, Air Vent, etc	L.S.	1	1,911,078,800	0	1,124,983,000	3,036,061,800	1,911,078,800	0	1,124,983,000	3,036,061,800
JD-P1-Bq-147	L.1.2	Emergency Water Outlet Gate; B 2.0 m x H 1.65 m including Gate Guide, Lifting Beam, Hoist, etc	L.S.	1	1,616,974,200	0	778,160,000	2,395,134,200	1,616,974,200	0	778,160,000	2,395,134,200
JD-P1-Bq-148	L.1.3	Trash Rack for Bulkhead Gate and Low Water Outlet Gate	L.S.	1	666,213,300	0	531,782,000	1,197,995,300	666,213,300	0	531,782,000	1,197,995,300
JD-P1-Bq-149	L.1.4	Outlet Pipe; 1400 mm dia., 650 mm dia. 250 mm including Transition Pipe, Reducer, Installation Stand, etc.	L.S.	1	8,386,460,300	0	3,993,334,000	12,379,794,300	8,386,460,300	0	3,993,334,000	12,379,794,300
JD-P1-Bq-150	L.1.5	Control and Guard Gates with Auxiliary Facilities; for 650 mm dia. Outlet Pipe	L.S.	1	2,362,460,900	0	541,919,000	2,904,379,900	2,362,460,900	0	541,919,000	2,904,379,900
JD-P1-Bq-151	L.1.6	Control and Guard Gates with Auxiliary Facilities; for 250mm dia. Outlet Pipe	L.S.	1	864,188,300	0	142,648,000	1,006,836,300	864,188,300	0	142,648,000	1,006,836,300
JD-P1-Bq-152	L.1.7	Overhead Traveling Crane (3 ton) and Operating Stand in Control and Guard Gates Operation Room	L.S.	1	186,680,100	0	55,113,000	241,793,100	186,680,100	0	55,113,000	241,793,100
JD-P1-Bq-153	L.1.8	Electrical Equipment for Control and Guard Gates including local control panels and ultrasonic flow meter	L.S.	1	191,934,500	0	18,754,000	210,688,500	191,934,500	0	18,754,000	210,688,500
JD-P1-Bq-154	L.2	Furnishing and Installing Water Control Plant for Hydropower Station :										
JD-P1-Bq-155	L.2.1	Outlet Pipe Comprising 1400 mm dia. Section, 1400 mm to 800mm reducer, and 800mm dia. section	L.S.	1	43,277,400	0	20,050,100	63,327,500	43,277,400	0	20,050,100	63,327,500
JD-P1-Bq-156	L.2.2	Tailrace Gate; B 2.15 m x H 2.075 m including Gate Guide, Hoist, etc	L.S.	1	9,372,500	137,800	10,998,000	20,508,300	9,372,500	137,800	10,998,000	20,508,300
JD-P1-Bq-157	L.2.3	Drainage Pipe Valve 150 mm dia.	L.S.	1	4,038,900	36,300	325,600	4,400,800	4,038,900	36,300	325,600	4,400,800
JD-P1-Bq-158	L.3	Furnishing and Installing Flap Gate 600 mm dia.	L.S.	1	2,504,100	34,100	1,731,500	4,269,700	2,504,100	34,100	1,731,500	4,269,700
JD-P1-Bq-159	L.4	Furnishing and Installing Closure Gate for Diversion Tunnel; B 6.2 m x H 5.8 m including Gate Guide, etc	L.S.	1	967,584,100	0	722,824,800	1,690,408,900	967,584,100	0	722,824,800	1,690,408,900
JD-P1-Bq-160	M.	Instrumentation of Structures										
JD-P1-Bq-161	M.1	Supplying and Installing Electrical Piezometer :										
JD-P1-Bq-162	M.1.1	in Embankment	No.	20	7,621,260	59,630	1,370,190	9,051,080	152,425,200	1,192,600	27,403,800	181,021,600
JD-P1-Bq-163	M.1.2	in Borehole	No.	4	7,688,380	60,150	1,382,250	9,130,780	30,753,520	240,600	5,529,000	36,523,120
JD-P1-Bq-164	M.2	Supplying and Installing Foundation Deformation Meter (including Drilling and Backfilling Drilled Hole)	No.	1	30,942,090	242,080	5,562,890	36,747,060	30,942,090	242,080	5,562,890	36,747,060
JD-P1-Bq-165	M.3	Supplying and Installing Electrical Tri-axial Joint Meters	No.	2	5,423,100	42,430	975,000	6,440,530	10,846,200	84,860	1,950,000	12,881,060
JD-P1-Bq-166	M.4	Supplying and Installing Probe Extensometer with Magnet/Reed Switch Transducer	No.	1	135,206,900	1,057,800	24,308,100	160,572,800	135,206,900	1,057,800	24,308,100	160,572,800
JD-P1-Bq-167		including Excavating Trench and Constructing Protective Surround										
JD-P1-Bq-168		including Readout Unit										
JD-P1-Bq-169	M.5	Supplying and Installing Strong Motion Accelerograph with Recorder	No.	2	170,198,600	1,331,550	30,599,000	202,129,150	340,397,200	2,663,100	61,198,000	404,258,300
JD-P1-Bq-170	M.6	Supplying and Installing Surface Movement Markers :										
JD-P1-Bq-171	M.6.1	on Upstream Surface of Embankment Dam	No.	6	190,490	110,660	305,590	606,740	1,142,940	663,960	1,833,540	3,640,440
JD-P1-Bq-172	M.6.2	on Downstream Surface of Embankment Dam	No.	9	96,790	95,270	185,670	377,730	871,110	857,430	1,671,030	3,399,570
JD-P1-Bq-173	M.6.3	on Dam Crest	No.	6	99,060	95,230	179,170	373,460	594,360	571,380	1,075,020	2,240,760
JD-P1-Bq-174	M.6.4	on Natural Ground	No.	4	99,060	95,230	179,170	373,460	396,240	380,920	716,680	1,493,840
JD-P1-Bq-175	M.6.5	Movement Marker Bench Mark	No.	3	2,718,900	36,300	306,200	3,061,400	8,156,700	108,900	918,600	9,184,200
JD-P1-Bq-176	M.6.6	Movement Marker Control Station	No.	2	44,181,700	589,900	4,974,700	49,746,300	88,363,400	1,179,800	9,949,400	99,492,600
JD-P1-Bq-177	M.7	Supplying and Installing Terminal Box for instruments in gallery	No.	3	18,058,533	0	2,274,400	20,332,933	54,175,600	0	6,823,200	60,998,800
JD-P1-Bq-178	M.8	Supplying and Installing Digital Readout Unit	No.	2	14,589,850	0	1,837,550	16,427,400	29,179,700	0	3,675,100	32,854,800
JD-P1-Bq-179	M.9	Supplying and Installing Stand Pipe Piezometer in Borehole	No.	7	20,114,680	0	2,533,360	22,648,040	140,802,760	0	17,733,520	158,536,280
JD-P1-Bq-180	M.10	Supplying and Installing Seepage Measuring Facilities	No.	2	46,301,300	0	5,831,450	52,132,750	92,602,600	0	11,662,900	104,265,500
JD-P1-Bq-181	N.	Generating Plant										
JD-P1-Bq-182	N.1	Furnishing and Installing Turbines and Auxiliaries :										
JD-P1-Bq-183	N.1.1	Hydraulic Turbine (Horizontal Francis: 1.630kW, H= 64.3m, Q= 3m <sup>3</sup> /s)	Set	1	9,387,200,000	0	1,043,000,000	10,430,200,000	9,387,200,000	0	1,043,000,000	10,430,200,000
JD-P1-Bq-184	N.1.2	Governor (Electric governor Dn:30% Dp:60%)	Set	1								
JD-P1-Bq-185	N.1.3	Inlet Valve (Butterfly or Biplane Valve $\phi=0.8m$ )	Set	1								
JD-P1-Bq-186	N.1.4	Cooling Water System, if necessary	Set	1								
JD-P1-Bq-187	N.1.5	Drainage & Dewatering System	Set	1								
JD-P1-Bq-188	N.1.6	Oil Storage & Transfer System, if necessary	Set	1								
JD-P1-Bq-189	N.1.7	Compressed Air Supply System, if necessary	Set	1								
JD-P1-Bq-190	N.1.8	Maintenance Tools Machine Shop Equipment	Lot	1								
JD-P1-Bq-191	N.1.9	Spare Parts	Lot	1								
JD-P1-Bq-192	N.1.10	Instruction of Employer's Personnel and Attendance of Employer at Shop Tests	Lot	1								
JD-P1-Bq-193	N.1.11	Flow Meter System	Set	1	513,400,000	0	90,600,000	604,000,000	513,400,000	0	90,600,000	604,000,000
JD-P1-Bq-194	N.2	Furnishing and Installing Generators and Excitation System :										
JD-P1-Bq-195	N.2.1	Generator (Horizontal 2MVA 750rpm 6.6kV pf0.8)	Set	1	6,407,900,000	0	1,244,100,000	7,652,000,000	6,407,900,000	0	1,244,100,000	7,652,000,000
JD-P1-Bq-196	N.2.2	Excitation System (Brushless exciter & AVR two indoor cubicles)	Set	1								
JD-P1-Bq-197	N.2.3	Neutral Grounding Cubicle	Set	1								
JD-P1-Bq-198	N.2.4	Spare parts	Lot	1								
JD-P1-Bq-199	N.3	Furnishing and Installing Main Transformer (2000kVA 6.6/20kV)	set	1	525,400,000	0	54,400,000	579,800,000	525,400,000	0	54,400,000	579,800,000
JD-P1-Bq-200	N.4	Furnishing and Installing Outdoor Cubicle :										
JD-P1-Bq-201	N.4.1	20kV DS Cubicle (one outdoor cubicle 20 kV MOF, DS, LA, DS, CH)	Lot	1	374,400,000	0	241,600,000	616,000,000	374,400,000	0	241,600,000	616,000,000

Table 5.2.1 (4/4) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

ID No.	BQ Item	Unit	Quantity	Unit Cost				Cost			
				PF/C	IF/C	I/C	Total	PF/C	IF/C	I/C	Total
JD-P1-Bq-202	N.4.2 20kV CB Cubicle (one outdoor cubicle 24kV CB, PT, CT, CH)	Set	1	1,026,700,000	0	302,000,000	1,328,700,000	1,026,700,000	0	302,000,000	1,328,700,000
JD-P1-Bq-203	N.4.3 6.6kV Cubicle (one outdoor cubicle 6.6 kV DS, PT, CT, CH)	Lot	1	241,600,000	0	60,400,000	302,000,000	241,600,000	0	60,400,000	302,000,000
JD-P1-Bq-204	N.5 Furnishing and installing Indoor Cubicle :										
JD-P1-Bq-205	N.5.1 6.6kV CB cubicle (one indoor cubicle VCB 7.2kV 1kA, DS, PT, CT, Ar, Chf)	Lot	1	422,800,000	0	60,400,000	483,200,000	422,800,000	0	60,400,000	483,200,000
JD-P1-Bq-206	N.5.2 Station Tr. Cubicle (one indoor cubicle St.Tr: 6.6/4, 2 150kVA, PF, PT, CT)	Lot	1	241,600,000	0	60,400,000	302,000,000	241,600,000	0	60,400,000	302,000,000
JD-P1-Bq-207	N.5.3 DC Supply System (one indoor cubicle, Charger, Inverter, Battery, MCCB)	Lot	1	422,800,000	0	60,400,000	483,200,000	422,800,000	0	60,400,000	483,200,000
JD-P1-Bq-208	N.5.4 Switchgear for Krapyak s/s (one indoor cubicle, 24kV CB, PT, CT, CH)	Lot	1	1,026,700,000	0	302,000,000	1,328,700,000	1,026,700,000	0	302,000,000	1,328,700,000
JD-P1-Bq-209	N.6 Furnishing and installing Control and Protection Equipment (six panels)	Lot	1	2,415,800,000	0	302,000,000	2,717,800,000	2,415,800,000	0	302,000,000	2,717,800,000
JD-P1-Bq-210	N.7 Furnishing and installing Cables and Fittings :										
JD-P1-Bq-211	N.7.1 20kV Power Cables (CVT 3c 35m)	Lot	1	66,400,000	0	54,400,000	120,800,000	66,400,000	0	54,400,000	120,800,000
JD-P1-Bq-212	N.7.2 6.6kV Power Cables (CVT 3c 100m)	Lot	1	66,400,000	0	54,400,000	120,800,000	66,400,000	0	54,400,000	120,800,000
JD-P1-Bq-213	N.7.3 Low Voltage Cables (PVC-CVV, CVV-S)	Lot	1	72,500,000	0	60,400,000	132,900,000	72,500,000	0	60,400,000	132,900,000
JD-P1-Bq-214	N.8 Furnishing and installing Ancillary Equipment :										
JD-P1-Bq-215	N.8.1 Telephone System (PABX 20telephone sets)	Lot	1	48,300,000	0	12,100,000	60,400,000	48,300,000	0	12,100,000	60,400,000
JD-P1-Bq-216	N.8.2 Lighting Auxiliary (Lighting fixture Distribution panels conduit wires)	Lot	1	96,600,000	0	24,200,000	120,800,000	96,600,000	0	24,200,000	120,800,000
JD-P1-Bq-217	N.9 Furnishing and installing Grounding System	Lot	1	60,400,000	0	60,400,000	120,800,000	60,400,000	0	60,400,000	120,800,000
JD-P1-Bq-218	N.10 Furnishing and installing Overhead Travelling Crane (15ton, span= 9.5m, lift=20m, Hoist=1tonne)	Set	1	1,159,600,000	0	120,800,000	1,280,400,000	1,159,600,000	0	120,800,000	1,280,400,000
JD-P1-Bq-219	N.11 Furnishing and installing Transmission Lines :										
JD-P1-Bq-220	N.11.1 Steel Towers (20kV 1cct h=20m)	Set	2	217,441,250	0	362,371,550	579,812,800	434,882,500	0	724,743,100	1,159,625,600
JD-P1-Bq-221	N.11.2 Concrete Poles (20kV 1cct h=13m)	No.	280	2,840,425	0	4,180,325	7,020,750	795,319,000	0	1,170,491,000	1,965,810,000
JD-P1-Bq-222	N.11.3 Insulators and Fittings (Suspension : 254mm)	Lot	1	199,314,100	0	181,200,000	380,514,100	199,314,100	0	181,200,000	380,514,100
JD-P1-Bq-223	N.11.4 Power Conductors (AAAC 120 sq. 14km)	km	14	67,866,000	0	129,474,000	197,340,000	950,124,000	0	1,812,636,000	2,762,760,000
JD-P1-Bq-224	N.11.5 Telecommunication Lines (CCCP-AP-SS-0.65mm-20P)	km	14	27,292,500	0	42,282,500	69,575,000	382,095,000	0	591,955,000	974,050,000
JD-P1-Bq-225	O. Relocation of Power Transmission Line										
JD-P1-Bq-226	O.1 Relocation of Power Transmission Line	L.S.	1	6,692,098,700	602,973,000	3,139,545,300	10,434,617,000	6,692,098,700	602,973,000	3,139,545,300	10,434,617,000
JD-P1-Bq-227	P. Miscellaneous Works										
JD-P1-Bq-228	P.1 Bridge Bearings :										
JD-P1-Bq-229	P.1.1 for Spillway Bridge including Elastometric Bearing Pad (350 x 280 x 73) and Rubber Sheet (400 x 100 x 30)	No.	6	564,583	863,052	1,420,738	2,848,372	3,387,495	5,178,312	8,524,425	17,090,232
JD-P1-Bq-230	P.1.2 for Access Road Bridge including Elastometric Bearing Pad (350x 280x 59) and Rubber Sheet (400 x100x20)	No.	10	529,780	1,371,142	1,853,492	3,754,413	5,297,800	13,711,415	18,534,915	37,544,130
JD-P1-Bq-231	P.2 Bridge Expansion Joints :										
JD-P1-Bq-232	P.2.1 in Spillway Bridge	L.S.	1	120,600	7,100	123,800	251,500	120,600	7,100	123,800	251,500
JD-P1-Bq-233	P.2.2 in Access Road Bridge	L.S.	1	131,600	7,800	135,100	274,500	131,600	7,800	135,100	274,500
JD-P1-Bq-234	P.3 Permanent Electrical Installation :										
JD-P1-Bq-235	P.3.1 Gallery and General Lighting Installation	L.S.	1	272,614,000	0	124,228,000	396,842,000	272,614,000	0	124,228,000	396,842,000
JD-P1-Bq-236	P.3.2 Power Cables	L.S.	1	5,382,600	0	25,082,300	30,464,900	5,382,600	0	25,082,300	30,464,900
JD-P1-Bq-237	P.4 Supplying and installing Submersible Drainage Pumps :										
JD-P1-Bq-238	P.4.1 Drainage for Gallery; 0.2 m <sup>3</sup> /min with Automatic Pump Operation System	No.	2	37,692,400	1,328,700	6,818,600	45,839,700	75,384,800	2,657,400	13,637,200	91,679,400
JD-P1-Bq-239	P.4.2 Drainage for Hydropower Station; 0.5 m <sup>3</sup> /min	No.	2	30,907,100	1,509,900	5,782,800	38,199,800	61,814,200	3,019,800	11,565,600	76,399,600
JD-P1-Bq-240	P.5 Reconstruction Wet Stone Masonry Steps to Goa Kreo	L.S.	1	1,740,600	236,800	5,207,200	7,184,600	1,740,600	236,800	5,207,200	7,184,600
JD-P1-Bq-241	P.6 Furnishing and installing Trash Boom in Reservoir including Concrete Anchor	L.S.	1	437,500,300	1,500,000	56,247,300	495,247,600	437,500,300	1,500,000	56,247,300	495,247,600
JD-P1-Bq-242	P.7 Supplying and installing Reservoir Water Level Sensor with Recorder	L.S.	1	211,022,100	1,566,900	27,728,400	240,317,400	211,022,100	1,566,900	27,728,400	240,317,400
JD-P1-Bq-243	P.8 Supplying and installing Water Level Staff Gauge :										
JD-P1-Bq-244	P.8.1 for Reservoir Water Level installed on Inclined Intake Structure	No.	1	18,722,200	352,600	56,979,000	76,053,800	18,722,200	352,600	56,979,000	76,053,800
JD-P1-Bq-245	P.8.2 for Downstream River Water Level installed on Concrete Wall	No.	1	93,620	1,770	284,900	380,290	93,620	1,770	284,900	380,290
JD-P1-Bq-246	P.9 Provision of Maintenance Equipment :										
JD-P1-Bq-247	P.9.1 Patrol Boat with Trailer	No.	1	169,620,500	3,019,500	18,343,500	190,983,500	169,620,500	3,019,500	18,343,500	190,983,500
JD-P1-Bq-248	P.9.2 Patrol Vehicles (4-WD)	No.	2	393,225,000	7,000,000	42,525,000	442,750,000	786,450,000	14,000,000	85,050,000	885,500,000
JD-P1-Bq-249	P.9.3 Station Wagon	No.	2	146,055,000	2,600,000	15,795,000	164,450,000	292,110,000	5,200,000	31,590,000	328,900,000
JD-P1-Bq-250	P.9.4 Dump Truck (6 tonne)	No.	1	457,449,900	8,143,300	49,470,600	515,063,800	457,449,900	8,143,300	49,470,600	515,063,800
JD-P1-Bq-251	P.9.5 Grass Cutters	No.	3	33,985,900	605,000	3,675,400	38,266,300	101,957,700	1,815,000	11,026,200	114,798,900
JD-P1-Bq-252	Q. Building Works										
JD-P1-Bq-253	Q.1 Hydro Power Station (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	337,109,400	132,794,200	1,125,069,300	1,594,972,900	337,109,400	132,794,200	1,125,069,300	1,594,972,900
JD-P1-Bq-254	Q.2 Garage (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	8,633,000	3,548,500	45,080,600	57,262,100	8,633,000	3,548,500	45,080,600	57,262,100
JD-P1-Bq-255	Q.3 Guard House (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	31,495,000	16,354,100	134,205,100	182,054,200	31,495,000	16,354,100	134,205,100	182,054,200
JD-P1-Bq-256	Q.4 External Works (including excavation, filling, grading, foundation, fence, drain cover, flag stone, retaining wall, tree planting, concrete block, plastering, concrete paving, tile, sanitary, electrical and painting works)	L.S.	1	18,074,700	8,156,100	87,526,100	113,756,900	18,074,700	8,156,100	87,526,100	113,756,900
								190,366,515,415	11,592,102,659	126,629,515,985	328,588,134,059



**Table 5.2.2 (1/2) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-2**

Component : Construction of Jatibarang Multipurpose Dam

Package-2 : Operation and Maintenance Building and Goa Kreo Bridge

ID. No.	Item No.	BQ Item	Unit	Quantity	Unit Cost				Cost			
					PF/C	IF/C	L/C	Total Unit Cost	PF/C	IF/C	L/C	Total Cost
JD-P2-Bq-1	A	General										
JD-P2-Bq-2	A.1	Mobilization and Demobilization	L.S.	1	40,723,800	760,600	31,727,500	73,211,900	40,723,800	760,600	31,727,500	73,211,900
JD-P2-Bq-3	A.2	Establishment	L.S.	1	24,292,200	7,722,000	103,657,200	135,671,400	24,292,200	7,722,000	103,657,200	135,671,400
JD-P2-Bq-4	A.3	Drawings	L.S.	1	10,590,900	600,000	50,257,900	61,448,800	10,590,900	600,000	50,257,900	61,448,800
JD-P2-Bq-5	A.4	Transport Facilities										
JD-P2-Bq-6	A.4.1	Supply, operate and maintain new four-door four-wheel drive station jeep	months	25	4,502,922	75,323	2,033,215	6,611,460	112,573,042	1,883,083	50,830,375	165,286,500
JD-P2-Bq-7	A.4.2	Supply, operate and maintain new station wagon	months	25	1,368,886	31,053	1,391,463	2,791,403	34,222,146	776,333	34,786,583	69,785,063
JD-P2-Bq-8	A.4.3	Supply, operate and maintain new motor cycle with capacity greater than 150 cc	months	25	335,802	25,613	955,325	1,316,740	8,395,042	640,333	23,883,125	32,918,500
JD-P2-Bq-9	B	Dam Mangement Complex										
JD-P2-Bq-10	B.1	Buildings										
JD-P2-Bq-11	B.1.1	Administration Building (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & Windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	216,239,200	74,916,700	906,148,200	1,197,304,100	216,239,200	74,916,700	906,148,200	1,197,304,100
JD-P2-Bq-12	B.1.2	Staff House 1 (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	47,493,200	12,475,000	162,163,900	222,132,100	47,493,200	12,475,000	162,163,900	222,132,100
JD-P2-Bq-13	B.1.3	Staff House 2-1 (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	24,946,800	7,624,300	97,737,800	130,308,900	24,946,800	7,624,300	97,737,800	130,308,900
JD-P2-Bq-14	B.1.4	Staff House 2-2 (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	24,946,800	7,624,300	97,737,800	130,308,900	24,946,800	7,624,300	97,737,800	130,308,900
JD-P2-Bq-15	B.1.5	Staff House 2-3 (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	24,946,800	7,624,300	97,737,800	130,308,900	24,946,800	7,624,300	97,737,800	130,308,900
JD-P2-Bq-16	B.1.6	Staff House 2-4 (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	24,946,800	7,624,300	97,737,800	130,308,900	24,946,800	7,624,300	97,737,800	130,308,900
JD-P2-Bq-17	B.1.7	Mushola (including excavation, filling, grading, foundation, reinforced concrete, roofing, concrete block, brick, plastering, door & windows, glazing, miscellaneous metal, interior finishing, tile, sanitary, electrical and painting works)	L.S.	1	29,248,500	10,630,600	120,312,400	160,191,500	29,248,500	10,630,600	120,312,400	160,191,500

**Table 5.2.2 (2/2) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-2**

ID. No.	Item No.	BQ Item	Unit	Quantity	Unit Cost				Cost			
					PF/C	IF/C	L/C	Total Unit Cost	PF/C	IF/C	L/C	Total Cost
JD-P2-Bq-18	B.2	External Works (including excavation, filling, grading, foundation, fence, drain cover, flag stone, retaining wall, tree planting, concrete block, plastering, concrete paving, tile, sanitary, electrical and painting works)	L.S.	1	48,002,100	12,019,000	268,964,100	328,985,200	48,002,100	12,019,000	268,964,100	328,985,200
JD-P2-Bq-19	B.3	Power Supply Facilities (including PLN connection to all	L.S.	1	5,382,600	0	25,082,300	30,464,900	5,382,600	0	25,082,300	30,464,900
JD-P2-Bq-20	C	Construction of Approach Bridge to Goa Kreo										
JD-P2-Bq-21	C.1	Bridge and Approach Road										
JD-P2-Bq-22		(Superstructure)										
JD-P2-Bq-23	C.1.1	Concrete, Type B including Formwork, Scaffolding, and Falsework	m <sup>3</sup>	104	794,760	46,160	1,249,600	2,090,520	82,655,040	4,800,640	129,958,400	217,414,080
JD-P2-Bq-24	C.1.2	Deformed Reinforcing Bars	kg	18,680	1,200	2,810	3,620	7,629	22,414,132	52,487,064	67,615,996	142,517,192
JD-P2-Bq-25	C.1.3	Asphaltic Concrete	tonne	25	60,331	19,470	117,591	197,392	1,508,275	486,750	2,939,775	4,934,800
JD-P2-Bq-26	C.1.4	Expansion Joint	m	11	39,700	58,500	182,950	281,150	436,700	643,500	2,012,450	3,092,650
JD-P2-Bq-27	C.1.5	Hand Rail	kg	500	2,081	1,051	5,065	8,197	1,040,500	525,500	2,532,500	4,098,500
JD-P2-Bq-28	C.1.6	Drain Pipe, PVC Pipe Dia. 100 mm	m	51	4,780	6,730	22,350	33,860	243,780	343,230	1,139,850	1,726,860
JD-P2-Bq-29	C.1.7	Elastomeric Bearing Pad (316 x 316 x 41)	No.	16	347,600	302,000	715,900	1,365,500	5,561,600	4,832,000	11,454,400	21,848,000
JD-P2-Bq-30		(Substructure and Approach Road)										
JD-P2-Bq-30.1	C.1.8	Clearing and Grubbing	m <sup>2</sup>	10	3,850	90	3,030	6,970	38,500	900	30,300	69,700
JD-P2-Bq-31	C.1.9	Stripping of Topsoil	m <sup>3</sup>	50	13,330	260	10,420	24,010	666,500	13,000	521,000	1,200,500
JD-P2-Bq-32	C.1.10	Excavation	m <sup>3</sup>	1,130	14,480	270	12,860	27,610	16,362,400	305,100	14,531,800	31,199,300
JD-P2-Bq-33	C.1.11	Backfilling	m <sup>3</sup>	967	9,480	120	7,800	17,400	9,167,160	116,040	7,542,600	16,825,800
JD-P2-Bq-34	C.1.12	Embankment	m <sup>3</sup>	114	24,560	1,210	40,050	65,820	2,799,840	137,940	4,565,700	7,503,480
JD-P2-Bq-35	C.1.13	Concrete, Type C-1 including Scaffolding and Formwork	m <sup>3</sup>	163	170,470	42,580	404,870	617,920	27,786,610	6,940,540	65,993,810	100,720,960
JD-P2-Bq-36	C.1.14	Deformed Reinforcing Bars	kg	12,170	1,200	2,810	3,620	7,629	14,602,783	34,195,266	44,051,749	92,849,798
JD-P2-Bq-37	C.1.15	Leveling Concrete, Type E	m <sup>3</sup>	9	74,860	37,740	203,790	316,390	673,740	339,660	1,834,110	2,847,510
JD-P2-Bq-38	C.1.16	Wet Stone Masonry	m <sup>3</sup>	150	38,790	28,800	207,300	274,890	5,818,500	4,320,000	31,095,000	41,233,500
JD-P2-Bq-39	C.1.17	Weep Hole, Dia. 50 mm	No.	70	2,654	909	14,990	18,552	185,769	63,636	1,049,266	1,298,671
JD-P2-Bq-40	C.1.18	Asphaltic Concrete	tonne	19	60,331	19,470	117,591	197,392	1,146,289	369,930	2,234,229	3,750,448
JD-P2-Bq-41	C.1.19	Gravel	m <sup>3</sup>	35	5,830	1,360	34,090	41,280	204,050	47,600	1,193,150	1,444,800
JD-P2-Bq-42	C.2	Gate Relocation										
JD-P2-Bq-43	C.2.1	Demolition of Existing Gate	L.S.	1	1,450,900	15,800	4,418,000	5,884,700	1,450,900	15,800	4,418,000	5,884,700
JD-P2-Bq-44	C.2.2	Excavation	m <sup>3</sup>	20	14,480	270	12,860	27,610	289,600	5,400	257,200	552,200
JD-P2-Bq-45	C.2.3	Concrete, Type C-1 including Formwork	m <sup>3</sup>	7	110,420	42,390	252,940	405,750	772,940	296,730	1,770,580	2,840,250
JD-P2-Bq-46	C.2.4	Deformed Reinforcing Bars	kg	230	1,200	2,810	3,620	7,629	275,977	646,254	832,531	1,754,762
JD-P2-Bq-47	C.2.5	Wet Stone Masonry Reconstruction	m <sup>3</sup>	10	38,790	28,800	207,300	274,890	387,900	288,000	2,073,000	2,748,900
JD-P2-Bq-48	C.2.6	Stone Block Reconstruction	m <sup>3</sup>	30	278,170	0	134,800	412,970	8,345,100	0	4,044,000	12,389,100
JD-P2-Bq-49	C.3	Existing Building										
JD-P2-Bq-50	C.3.1	Demolition and Reconstruction of Guard House, Mushola, and Toilet	L.S.	1	40,706,200	14,354,600	168,385,300	223,446,100	40,706,200	14,354,600	168,385,300	223,446,100
<b>Total Cost</b>									<b>922,490,714</b>	<b>279,495,930</b>	<b>2,742,841,479</b>	<b>3,944,828,124</b>



Table 5.2.3 (1/6) ENGINEERING SERVICE COST

**COST FOR ENGINEERING SERVICES ON CONSTRUCTION SUPERVISION**  
**SUMMARY**

<b>I.</b>	<b>FOREIGN CURRENCY IN YEN</b>		<b>¥458,803,714</b>
	1.1 Remuneration (Professional A)	¥427,630,286	
	1.2 Direct Cost	¥31,173,428	
<b>II.</b>	<b>LOCAL CURRENCY PORTION</b>		<b>Rp.5,662,546,000</b>
	3.1 Remuneration (Professional B)	Rp.2,413,530,000	
	3.2 Direct Cost	Rp.2,821,116,000	
	3.3 Equipment Cost	Rp.427,900,000	
<b>III.</b>	<b>TOTAL (I + II + III)</b>		<b>Rp.33,371,875,539</b>
	Foreign Currency in Yen	Rp.27,709,329,539	
	Local Currency in Rupiah	Rp.5,662,546,000	
		or equivalent to	<b>¥552,562,645</b>
<b>IV.</b>	<b>PHYSICAL CONTINGENCY (10%)</b>		<b>Rp.3,337,187,554</b>
	Foreign Currency in Yen	Rp.2,770,932,954	¥45,880,371
	Local Currency in Rupiah	Rp.566,254,600	
		or equivalent to	<b>¥55,256,265</b>
<b>V.</b>	<b>PRICE CONTINGENCY (F/C 3%, L/C 8%)</b>		<b>Rp.1,412,711,923</b>
	Foreign Currency in Yen	Rp.914,407,875	¥15,140,523
	Local Currency in Rupiah	Rp.498,304,048	
		or equivalent to	<b>¥23,391,309</b>
<b>VI.</b>	<b>VAT ( 10% OF III + IV + V )</b>		<b>Rp.3,812,177,502</b>
<b>VII.</b>	<b>TOTAL (III + IV + V + VI)</b>		<b>Rp.41,933,952,517</b>
		or equivalent to	<b>¥694,331,240</b>

Note: Applied Conversion Rate as of July 31, 1999



Table 5.2.3 (2/6) ENGINEERING SERVICE COST

## Breakdown - 1 REMUNERATION FOR PROFESSIONAL-A IN YEN

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No.	Designation	Total			2000			2001			2002			2003		
		M/M	Amount (Yen)		M/M	Rate (Yen)	Amount (Yen)	M/M	Rate (Yen)	Amount (Yen)	M/M	Rate (Yen)	Amount (Yen)	M/M	Rate (Yen)	Amount (Yen)
1.	Team Leader	57.0	144,818,856		2.0	2,511,600	5,023,200	11.0	2,511,600	27,627,600	11.0	2,511,600	27,627,600	0.0	2,511,600	0
2.	Road/Bridge Engineer	10.0	19,200,000		0.0	1,920,000	0	7.0	1,920,000	13,440,000	0.0	1,920,000	0	11.0	2,561,832	28,130,152
3.	Mechanical Engineer	10.0	19,200,000		0.0	1,920,000	0	0.0	1,920,000	0	0.0	1,920,000	0	0.0	1,958,400	5,760,000
4.	Dam Structural Engineer I (Deputy Team Leader)	41.0	90,948,000		0.0	2,200,000	0	9.0	2,200,000	19,800,000	11.0	2,200,000	24,200,000	0.0	1,958,400	0
5.	Dam Structural Engineer II	32.0	62,638,080		0.0	1,920,000	0	0.0	1,920,000	0	0.0	1,920,000	0	0.0	1,958,400	9,600,000
6.	Architect	16.0	27,200,000		0.0	1,700,000	0	8.0	1,700,000	13,600,000	0.0	1,700,000	0	0.0	1,734,000	0
7.	Contract Specialist	2.0	4,138,300		2.0	2,069,150	4,138,300	0.0	2,069,150	0	0.0	2,069,150	0	0.0	2,069,150	0
8.	Electrical Engineer	8.0	16,553,200		0.0	2,069,150	0	0.0	2,069,150	0	0.0	2,069,150	0	0.0	2,110,533	0
9.	Soil & Geotechnical Engineer	19.0	39,313,850		0.0	2,069,150	0	11.0	2,069,150	22,760,650	4.0	2,069,150	8,276,600	4.0	2,069,150	8,276,600
11.	Cost Estimator /Construction Planner	2.0	3,620,000		2.0	1,810,000	3,620,000	0.0	1,810,000	0	0.0	1,810,000	0	0.0	1,810,000	0
Total		197.0	427,630,286		6.0		12,781,500	46.0		97,228,250	37.0		81,224,200	45.0		97,857,152

Note : Monthly rate of remuneration will be escalated after first 2 years services from the date of commencement.  
Experience Year of each engineer is assumed from similar project

Table 5.2.3 (3/6) ENGINEERING SERVICE COST

## Breakdown - 2 REMUNERATION FOR PROFESSIONAL-B IN RUPIAH

No.	Designation	Total			2000			2001			2002			2003			2004			2005		
		M/M	Amount (Rp.)		M/M	Rate (Rp.)	Amount (Rp.)	M/M	Rate (Rp.)	Amount (Rp.)	M/M	Rate (Rp.)	Amount (Rp.)	M/M	Rate (Rp.)	Amount (Rp.)	M/M	Rate (Rp.)	Amount (Rp.)	M/M	Rate (Rp.)	Amount (Rp.)
1.	Co-Team Leader	65.0	607,200,000		2.0	10,000,000	20,000,000	11.0	10,000,000	110,000,000	11.0	10,000,000	110,000,000	0.0	10,000,000	0	0.0	10,000,000	0	0.0	10,000,000	0
2.	Row/Bridge Engineer	31.0	233,550,000		0.0	7,500,000	0	6.0	7,500,000	45,000,000	11.0	7,500,000	82,500,000	7.0	7,500,000	52,500,000	12.0	10,200,000	122,400,000	11.0	10,200,000	112,200,000
4.	Mechanical Engineer	17.0	127,500,000		0.0	7,500,000	0	0.0	7,500,000	0	0.0	7,500,000	0	4.0	7,500,000	30,000,000	0.0	7,500,000	0	0.0	7,500,000	0
5.	Dam Structural Engineer I	43.0	325,350,000		0.0	7,500,000	0	11.0	7,500,000	82,500,000	0.0	7,500,000	0	0.0	7,500,000	0	6.0	7,500,000	45,000,000	0.0	7,500,000	0
6.	Dam Structural Engineer II	41.0	327,180,000		0.0	7,500,000	0	11.0	7,500,000	82,500,000	0.0	7,500,000	0	2.0	7,500,000	15,000,000	10.0	7,500,000	75,000,000	0.0	7,500,000	0
7.	Electrical Engineer	9.0	67,500,000		0.0	7,500,000	0	0.0	7,500,000	0	0.0	7,500,000	0	2.0	7,500,000	15,000,000	10.0	7,803,000	78,030,000	0.0	7,959,000	0
8.	Soil Mechanical Engineer	25.0	187,650,000		0.0	7,500,000	0	3.0	7,500,000	22,500,000	11.0	7,500,000	82,500,000	10.0	7,500,000	75,000,000	0.0	7,500,000	0	0.0	7,500,000	0
9.	Geotechnical Engineer	28.0	210,600,000		3.0	7,500,000	22,500,000	11.0	7,500,000	82,500,000	10.0	7,500,000	75,000,000	0.0	7,500,000	0	0.0	7,500,000	0	0.0	7,500,000	0
10.	Tunnel Engineer	12.0	90,000,000		0.0	7,500,000	0	3.0	7,500,000	22,500,000	1.0	7,650,000	7,650,000	3.0	7,650,000	22,950,000	0.0	7,650,000	0	0.0	7,650,000	0
11.	Architect	16.0	120,000,000		0.0	7,500,000	0	8.0	7,500,000	60,000,000	0.0	7,500,000	0	0.0	7,500,000	0	8.0	7,500,000	60,000,000	0.0	7,500,000	0
12.	Cost Estimator	3.0	21,000,000		3.0	7,000,000	21,000,000	0.0	7,000,000	0	0.0	7,000,000	0	0.0	7,000,000	0	0.0	7,000,000	0	0.0	7,000,000	0
13.	Construction Planner	3.0	21,000,000		3.0	7,000,000	21,000,000	0.0	7,000,000	0	0.0	7,140,000	0	0.0	7,140,000	0	0.0	7,140,000	0	0.0	7,140,000	0
14.	Hydro Power Engineer	10.0	75,000,000		0.0	7,500,000	0	0.0	7,500,000	0	0.0	7,500,000	0	0.0	7,500,000	0	5.0	7,500,000	37,500,000	0.0	7,500,000	0
Total		380.0	2,413,550,000		11.0		84,500,000	64.0		507,500,000	76.0		600,350,000	75.0		599,100,000	54.0		442,380,000	22.0		179,700,000

Note : Monthly rate of remuneration will be escalated after first 2 years services from the date of commencement.  
Experience Year of each engineer is assumed from similar project

**Table 5.2.3 (4/6) ENGINEERING SERVICE COST**

**Breakdown - 4 SALARY FOR LOCAL EMPLOYEES**

No.	Designation	M/M	Rate	Amount	Remarks
<b>I. Office Staff</b>					
1.	Office Manager	60.0	Rp2,000,000	Rp120,000,000	
2.	Bilingual Secretary	60.0	Rp1,500,000	Rp90,000,000	
3.	Treasurer	60.0	Rp1,500,000	Rp90,000,000	
4.	Computer Operator	60.0	Rp750,000	Rp45,000,000	
6.	Draftsman	60.0	Rp1,500,000	Rp90,000,000	
8.	Janitor	60.0	Rp500,000	Rp30,000,000	
10.	Watchman	60.0	Rp500,000	Rp30,000,000	
<b>Sub-total</b>			<b>420.0</b>	<b>Rp495,000,000</b>	
<b>II. Assistant Site Engineer</b>					
1.	Assistant Site Engineers for Package-1	0.0	Rp2,100,000	Rp0	1 Engrs.x 60 months
2.	Assistant Site Engineers for Package-2	0.0	Rp2,100,000	Rp0	1 Engrs.x 60 months
<b>Sub-total</b>			<b>0.0</b>	<b>Rp0</b>	
<b>Total</b>			<b>420.0</b>	<b>Rp495,000,000</b>	

**Table 5.2.3 (5/6) ENGINEERING SERVICE COST**

**Breakdown - 5 REPORT AND REPRODUCTION COSTS**

No.	Item	Unit	Q'ty	Unit Price (Rp.)	Amount (Rp.)	Remarks
<b><u>Pre-construction Stage</u></b>						
1.	Monthly Report (Pre-construction & Construction Stage)	copies	900	50,000	45,000,000	60 months x 15 copies/months
2.	Quarterly Report	copies	285	50,000	14,250,000	15 copies x 19 times
3.	Design Review Report	copies	15	500,000	7,500,000	15 copies
4.	Updated Tender Documents ( 2 packages)	copies	120	145,000	17,400,000	15 copies x 2 packages x 4 vol.
5.	Tender Evaluation Report ( 7 packages)	copies	30	100,000	3,000,000	15 copies x 2 packages
<b><u>Construction Stage</u></b>						
6.	O/M Manual	copies	15	150,000	2,250,000	15 copies
7.	Service Completion Report	copies	15	150,000	2,250,000	15 copies
8.	Reproduction of Reports/ Documents	months	60	250,000	15,000,000	
<b>Total</b>					<b>106,650,000</b>	

Table 5.2.3 (6/6) ENGINEERING SERVICE COST

## Breakdown - 6 EQUIPMENT COST

Item	Unit	Unit Cost (Rp.)	Q'ty	Amount (Rp.)	Remarks
<b>I. Office Furniture</b>				<b>0</b>	
(1) Working Desk w/ Chair	set	1,000,000	0	0	
	set	850,000	0	0	
(2) Meeting Desk	set	1,500,000	0	0	
(3) Drafting Table w/ Chair	set	7,800,000	0	0	
(4) Pipe Chair	set	105,000	0	0	
(5) File Cabinet	set	850,000	0	0	
(6) Drawing Cabinet	set	4,500,000	0	0	
(7) Steel Cupboard	set	1,000,000	0	0	
(8) Bookshelf	set	450,000	0	0	
<b>II. Office Equipment</b>				<b>408,100,000</b>	
(1) Personal Computer (Desktop)	set	14,000,000	4	56,000,000	
	set	25,000,000	0	0	
(2) Personal Computer (Lap Top)	set	25,000,000	4	100,000,000	
(3) Laser Printer (A3 size)	set	22,500,000	1	22,500,000	
(4) Photocopy Machine w/ accessories	set	27,000,000	1	27,000,000	
(5) Digitizer (Plotter, A3 size)	set	32,500,000	1	32,500,000	
(6) Stabilizer	set	1,250,000	4	5,000,000	
(7) Telephone w/ accessories	set	15,000,000	1	15,000,000	
(8) Facsimile w/ accessories	set	3,600,000	1	3,600,000	
(9) SSB Radio Communication System	set	40,000,000	1	40,000,000	
(10) Emergency Power Source (UPS)	set	4,000,000	1	4,000,000	
(11) Generator Set	set	50,000,000	1	50,000,000	
(12) A-1 Laser Plotter	set	52,500,000	1	52,500,000	
<b>III. Others</b>				<b>19,800,000</b>	
(1) Drafting Instrument Set	set	1,500,000	1	1,500,000	
(2) Electric Planimeter	set	5,000,000	2	10,000,000	
(3) White Board (900mmx1800mm)	set	500,000	1	500,000	
(4) White Board (600mmx900mm)	set	300,000	1	300,000	
(5) Compact Camera	set	2,500,000	3	7,500,000	
<b>Total</b>				<b>427,900,000</b>	

Note : Prices of Imported Equipment will be adjusted in accordance with exchange rate among Yen, US\$ & Rp.  
The unit cost of the above table is based on the exchange rate dated on 21 Sep. 1998.  
Specifications stated in Remarks are for reference only, subject to change on the basis of offer.

Table 5.2.4 (1/6) BREAKDOWN OF TRANSPORTATION FOR ENGINEERING SERVICE COST

BREAKDOWN OF COST FOR ENGINEERING SERVICES

FOREIGN CURRENCY PORTION IN YEN

¥458,803,714

1 Remuneration

¥427,630,286

Professional A:  
(See Breakdown -1)

197.0 M/M

¥427,630,286

2 Direct Cost

¥31,173,428

2.1 International Travel Cost

¥31,173,428

(1) Air Fare (round trip, nos. of trips on actual basis, IATA rate, subject to change)

¥24,400,000

Engineer (TKY-JKT-SMG)

¥400,000 x 25 R/T =

¥10,000,000

Family (1 spouse, 2 children) (TKY-JKT-SMG)

¥400,000 x 3 prsn x 12 R/T =

¥14,400,000

(2) Excess Baggage Allowance (round trip, nos. of trips on actual basis, IATA rate, subject to change)

¥3,660,000

Engineer (TKY-JKT)

¥3,000 x 10 kg x 25 R/T x 2 =

¥1,500,000

Family (1 spouse, 2, children) (TKY-JKT)

¥3,000 x 10 kg x 36 R/T x 2 =

¥2,160,000

(3) Unaccompanied Baggage Allowance (round trip, no. of on actual basis, IATA rate, subject to change)

¥720,000

Single Status (TKY-JKT-SMG)

¥3,000 x 25 kg x 0 R/T x 2 =

¥0

Family Status (TKY-JKT-SMG)

¥3,000 x 40 kg x 3 R/T x 2 =

¥720,000

(4) Inland Travel Cost (fixed unit rate)

¥1,071,600

Single Status (TKY)

¥15,960 x 13 R/T x 2 ways=

¥414,960

Family Status (TKY)

¥27,360 x 12 R/T x 2 ways=

¥656,640

(5) Travel Document (fixed unit rate, round trip, incl. inoculation, insurance, preparatory allowance)

¥501,028

Engineer (first trip from TKY)

¥22,800 x 0 R/T=

¥0

Engineer (subsequent trip from TKY)

¥8,550 x 25 R/T=

¥213,748

**Table 5.2.4 (2/6) BREAKDOWN OF TRANSPORTATION FOR ENGINEERING SERVICE COST**

Family (first trip from TKY)  
 $\text{¥}20,520 \times 3 \text{ R/T} = \text{¥}61,560$

Family (subsequent trip from TKY)  
 $\text{¥}20,520 \times 11 \text{ R/T} = \text{¥}225,720$

(6) Relocation & Storage Allowance (fixed unit rate,  
assignment is equal to /more than 12 months) ¥820,800

Single Status more than 2 years assign. (in TKY)  
 $\text{¥}0 \times 0 \text{ prn.} = \text{¥}0$

Family Status more than 2 years assign. (in TKY)  
 $\text{¥}273,600 \times 3 \text{ family} = \text{¥}820,800$

2.2 International Freight Cost (at cost, lump sum cost) ¥0

2.3 Overseas Training Cost (at cost, lump sum cost) ¥0

Table 5.2.4 (3/6) BREAKDOWN OF TRANSPORTATION FOR ENGINEERING SERVICE COST

<b>LOCAL CURRENCY PORTION</b>				<b>Rp.5,662,546,000</b>
1.	Remuneration			<b>Rp.2,413,530,000</b>
	Professional B (See Breakdown -2)	300.0 M/M		<u>Rp.2,413,530,000</u>
2.	Direct Cost			<b>Rp.2,821,116,000</b>
2.1	Professional A			<u>Rp.742,606,000</u>
(1)	Transit Allowance (fixed unit rate; round trip in JKT from/to abroad)			Rp.45,750,000
	Engineer			
	Rp.250,000 x 3 days x 25 R/T=			Rp.18,750,000
	Family (1 Spouse, 2 Children)			
	Rp.250,000 x 3 days x 36 R/T=			Rp.27,000,000
(2)	Excess Baggage Allowance (round trip, number of trips on actual basis, Garuda rate)			Rp.36,600,000
	Engineer (JKT-SMG)			
	Rp.30,000 x 10 kg x 25 R/T x 2 =			Rp15,000,000
	Family (1 Spouse, 2 Children, JKT-SMG)			
	Rp.30,000 x 10 kg x 36 R/T x 2 =			Rp21,600,000
(3)	Taxi Charge (fixed unit rate; round trip: airport-hotel in JKT/SMG)			Rp.6,000,000
	in JKT			
	Rp.50,000 x 4 times x 25 R/T=			Rp.5,000,000
	in SMG			
	Rp.20,000 x 2 times x 25 R/T=			Rp.1,000,000
(4)	Per Diem (fix unit rate, less than 6 months in SMG)			Rp.121,500,000
	Rp.150,000 x 30 days x 27 M/M=			Rp.121,500,000
(5)	Housing Allowance (fixed unit rate, equal to or more than 6 months in SMG)			Rp.387,500,000
	Single Status			
	Rp.1,500,000 x 42 M/M=			Rp.63,000,000
	Family Status			
	Rp.2,750,000 x 118 M/M=			Rp.324,500,000
(6)	Airport Tax (round trip, subject to change : Rp.25,000 (JKT) + RP.11,000(JKT) + Rp.10,000 (SMG) = Rp.46,000)			Rp.2,806,000
	Engineer			
	Rp.46,000 x 25 R/T=			Rp.1,150,000
	Family			
	Rp.46,000 x 36 R/T=			Rp.1,656,000



**Table 5.2.4 (4/6) BREAKDOWN OF TRANSPORTATION FOR ENGINEERING SERVICE COST**

- (7) Establishment Allowance (at cost; visa, work permit, stay permit and their extension, exit permit and exit charge) Rp.142,450,000

Visa Extension

Rp.300,000 x 44 times= Rp.13,200,000

Stay Permit

Rp.1,000,000 x 52 times= Rp.52,000,000

Police Resistration

Rp.250,000 x 0 times= Rp.0

Work Permit

Rp.250,000 x 89 times= Rp.22,250,000

Exit Permit

Rp.250,000 x 44 times= Rp.11,000,000

Fiscal Cost

Rp.1,000,000 x 44 times= Rp.44,000,000

DPKK

Rp.0 x 0 M/M= Rp.0

2.2 Professional B

Rp.574,880,000

(1) Mobilization and Demobilization

Rp.268,480,000

a) Air Fare (round trip, nos. of trips on actual basis, Garuda rate)

Rp.216,000,000

Engineer (JKT-SMG)

Rp.3,000,000 x 27 R/T= Rp.81,000,000

Family (1 spouse, 2 children) (JKT-SMG)

Rp.3,000,000 x 3 pms. x 15 R/T= Rp.135,000,000

b) Excess Baggage Allowance (round trip, nos. of trips on actual basis, Garuda rate)

Rp.48,000,000

Engineer (JKT-SMG)

Rp.30,000 x 10 kg x 32 R/T x 2 = Rp.19,200,000

Engineer (BDN-SMG)

Rp.30,000 x 10 kg x 0 R/T x 2 = Rp.0

Family (1 spouse, 2 children) (JKT-SMG)

Rp.30,000 x 10 kg x3 pns.x 16 R/Tx 2 = Rp.28,800,000

Family (1 spouse, 2 children) (BDN-SMG)

Rp.30,000 x 10 kg x3 pns.x 0 R/Tx 2 = Rp.0

c) Taxi Charge (fixed unit rate; round trip, Airport-Office) (JKT-SMG) in JKT

Rp.4,480,000

Rp.50,000 x 2 times x 32 R/T= Rp.3,200,000

**Table 5.2.4 (5/6) BREAKDOWN OF TRANSPORTATION FOR ENGINEERING SERVICE COST**

in SMG				
	Rp.20,000	x	2 times x 32 R/T=	Rp.1,280,000
(2) Per Diem Allowance (fixed unit rate)				Rp.103,500,000
Single Status (equal to or less than 3 months)				
	Rp.150,000	x	30 day x 23 M/M =	Rp.103,500,000
(3) Housing Allowance (fixed unit rate)				Rp.202,900,000
Single Status ( more than 3 months & less than 12 months)				
	Rp.400,000	x	61 M/M =	Rp.24,400,000
Family Status ( more than 12 months)				
	Rp.850,000	x	210 M/M =	Rp.178,500,000
<b>2.3 Duty Trip</b>				<b><u>Rp.627,480,000</u></b>
(1) Air Fare (round trip, nos. of trips on actual basis, Garuda rate, subject to change, JKT-SMG)				
	Rp.3,000,000	x	180 R/T=	Rp.540,000,000
(2) Per Diem Allowance in JKT (fixed unit rate)				
	Rp.150,000	x	3 days x 180 R/T =	Rp.81,000,000
(3) Airport Tax (round trip, subject to change: (Rp 11,000(SMG)+Rp.25,000(JKT)=36,000)				
	Rp.36,000	x	180 R/T=	Rp.6,480,000
<b>2.4 Cost for Office Supply (fixed unit rate)</b>				<b><u>Rp.180,000,000</u></b>
(1) Office Consumable				
	Rp.1,000,000	x	60 months=	Rp.60,000,000
(2) Drawing Material				
	Rp.1,000,000	x	60 months=	Rp.60,000,000
(3) Computer Supply Cost				
	Rp.1,000,000	x	60 months=	Rp.60,000,000

**Table 5.2.4 (6/6) BREAKDOWN OF TRANSPORTATION FOR ENGINEERING SERVICE COST**

2.5	Communication Cost (fixed unit rate, telephone/facsimile, freight cost)		<u>Rp.72,000,000</u>
	Rp.1,200,000 x 60 months=		Rp.72,000,000
2.6	Car Rental Cost (fixed unit rate)		<u>Rp.0</u>
	Rp.2,000,000 x 0 C/M=		Rp.0
2.7	Car O&M Cost (fixed unit rate)		<u>Rp.0</u>
	(1) Extra Fuel Cost (Rp. 1000/lit. x 15 lit x 25 days = Rp.375,000 x 0 C/M=	Rp. 375,000 )	Rp.0
2.8	Office Rental Cost (fixed unit rate)		<u>Rp.0</u>
	(1) Office Rental Cost Rp.25,000 x 0 m2 x 60 months=		Rp.0
2.9	Salary for Local Employee (see Breakdown - 4)		<u>Rp.495,000,000</u>
2.10	Office Equipment Maintenance and Running Cost (fixed unit rate)		<u>Rp.22,500,000</u>
	Rp.750,000 x 30 months =		Rp.22,500,000
2.11	Report and Reproduction Cost (fixed unit rate) (See Breakdown - 4)		<u>Rp.106,650,000</u>
3.	Equipment Cost (at cost) (See Breakdown - 5)		<b>Rp.427,900,000</b>

**Table 5.2.5 CALCULATION SHEET FOR COMPENSATION COST**

Description	Unit	Quantities	Unit Cost			Total Cost			Remarks
			PF/C	IF/C	L/C	PF/C	IF/C	L/C	
Land Acquisition	m2	1,500,000	0	0	9,000	0	0	13,500,000,000	
Total			0	0	9,000	0	0	13,500,000,000	

**Table 5.2.6 PRICE CONTINGENCY**

	P/F	I/F	L/F	Total Cost
Construction Base Cost	26,604,025,121	1,540,710,599	50,127,589,019	78,272,324,738
Engineering Service Cost	914,407,875		498,304,048	1,412,711,923
Compensation Cost			3,612,842,957	3,612,842,957
Administration Cost			5,210,874,308	5,210,874,308
<b>Total</b>	<b>27,518,432,996</b>	<b>1,540,710,599</b>	<b>59,449,610,331</b>	<b>88,508,753,926</b>

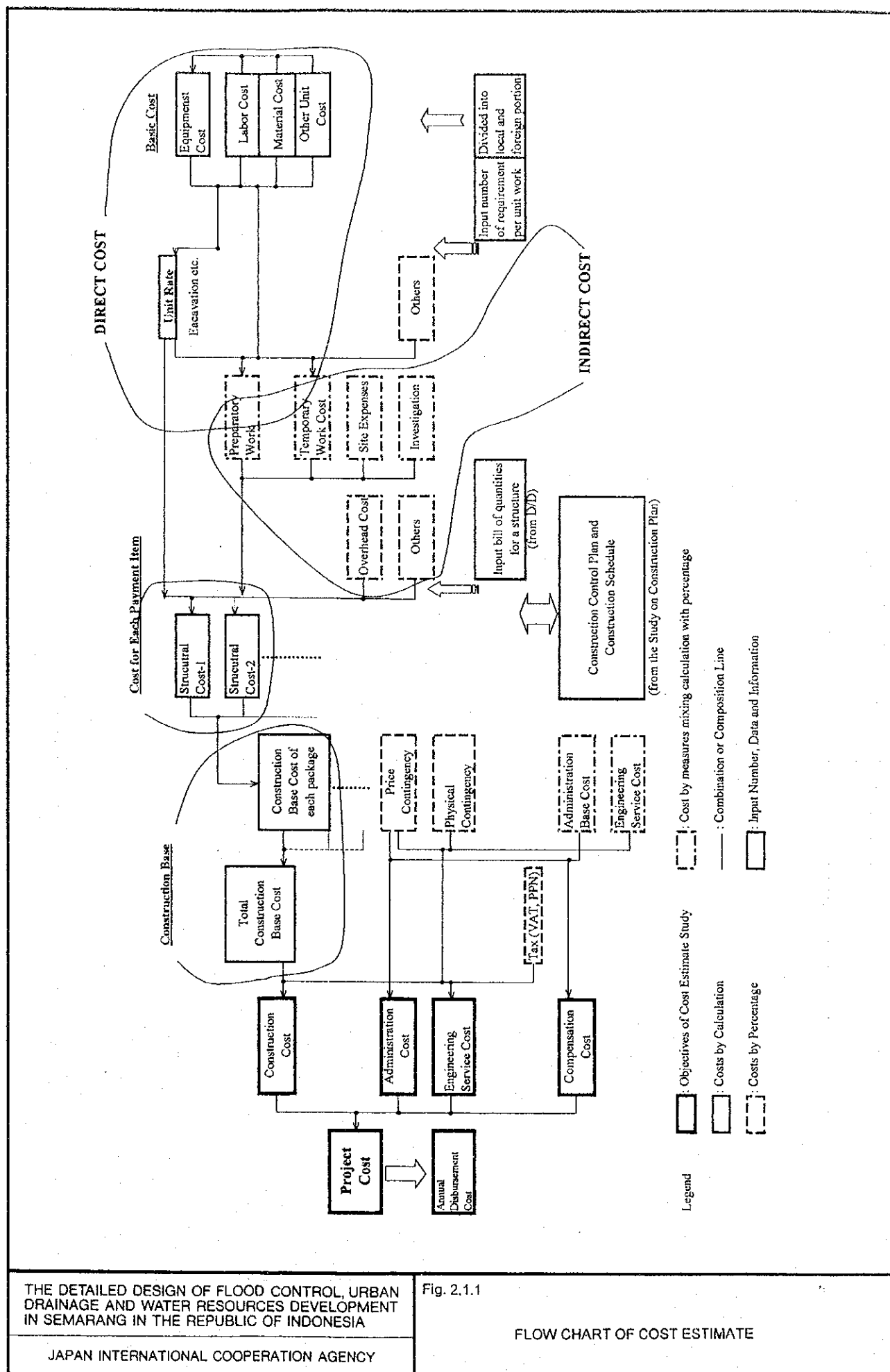
Note : All costs are exclusive of Tax.

Table 5.4.1 DISBURSEMENT SCHEDULE

Work Name	Currency	2000	2001	2002	2003	2004	2005	Total
Package-1	Rupiah	0	55,879,189,400	86,628,610,591	137,631,892,156	202,195,013,201	0	482,334,705,348
	Converting into Yen	0	925,232,766	1,434,373,509	2,278,872,288	3,347,891,286	0	7,986,369,849
Package-2	Rupiah	0	0	1,225,446,496	4,095,545,004	808,744,605	0	6,129,736,105
	Converting into Yen	0	0	20,290,617	67,812,946	13,390,978	0	101,494,541
Administration Cost	Rupiah	0	4,407,588,567	5,082,466,112	8,199,107,935	11,744,019,047	0	29,433,181,661
	Converting into Yen	0	72,979,680	84,154,123	135,758,650	194,454,346	0	487,346,799
Engineering Service Cost	Rupiah	838,679,050	4,701,203,147	7,391,298,516	11,923,749,804	17,079,022,000	0	41,933,952,517
	Converting into Yen	13,886,625	77,841,272	122,383,156	197,430,280	282,789,907	0	694,331,240
Compensation Cost	Rupiah	0	18,462,842,957	0	0	0	0	18,462,842,957
	Converting into Yen	0	305,702,846	0	0	0	0	305,702,846
Total	Rupiah	838,679,050	83,450,824,071	100,327,821,715	161,850,294,898	231,826,798,853	0	578,294,418,588
	Converting into Yen	13,886,625	1,381,756,564	1,661,201,405	2,679,874,164	3,838,526,517	0	9,575,245,275

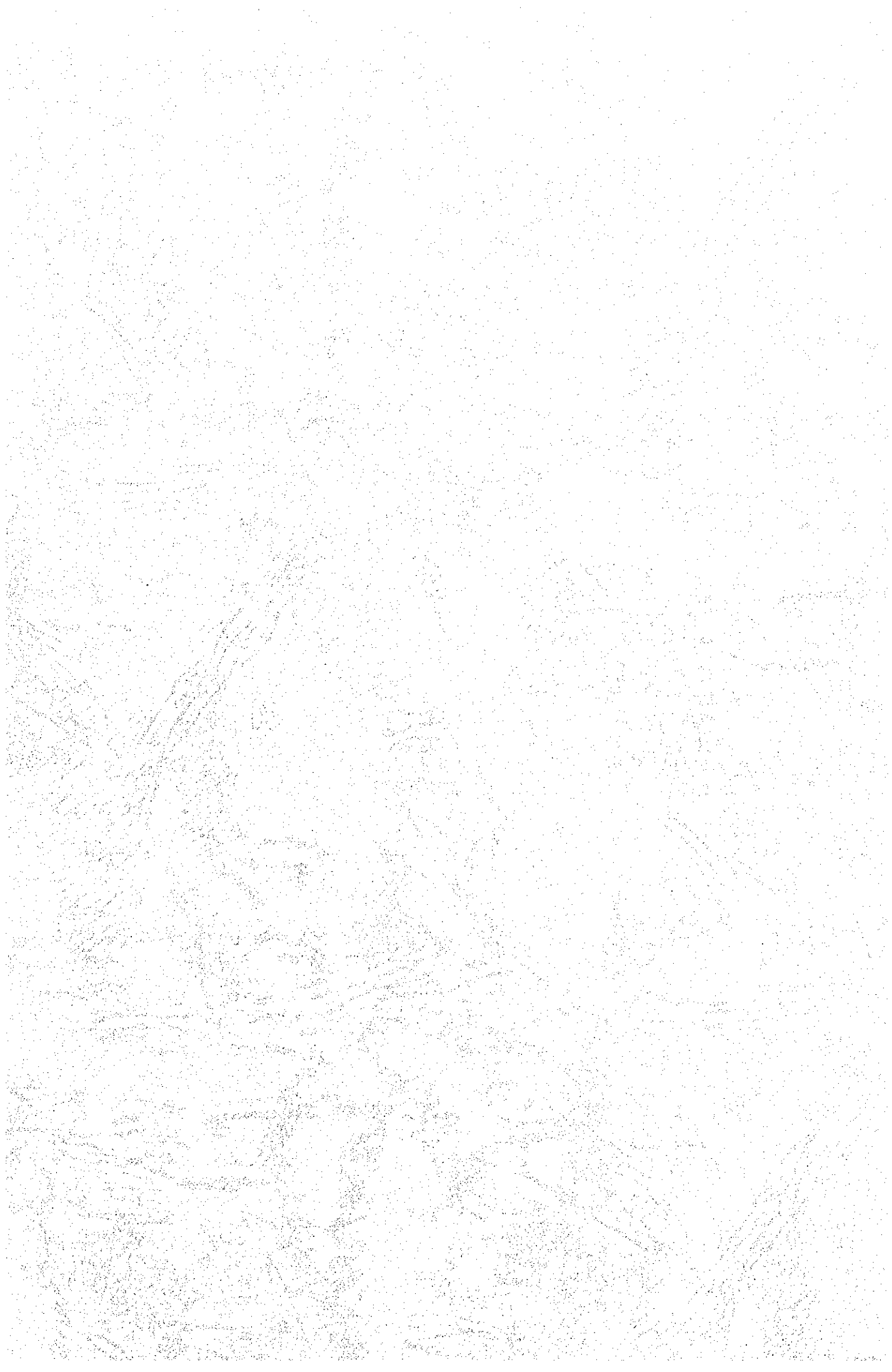
Note : All costs include price and physical contingencies and tax.

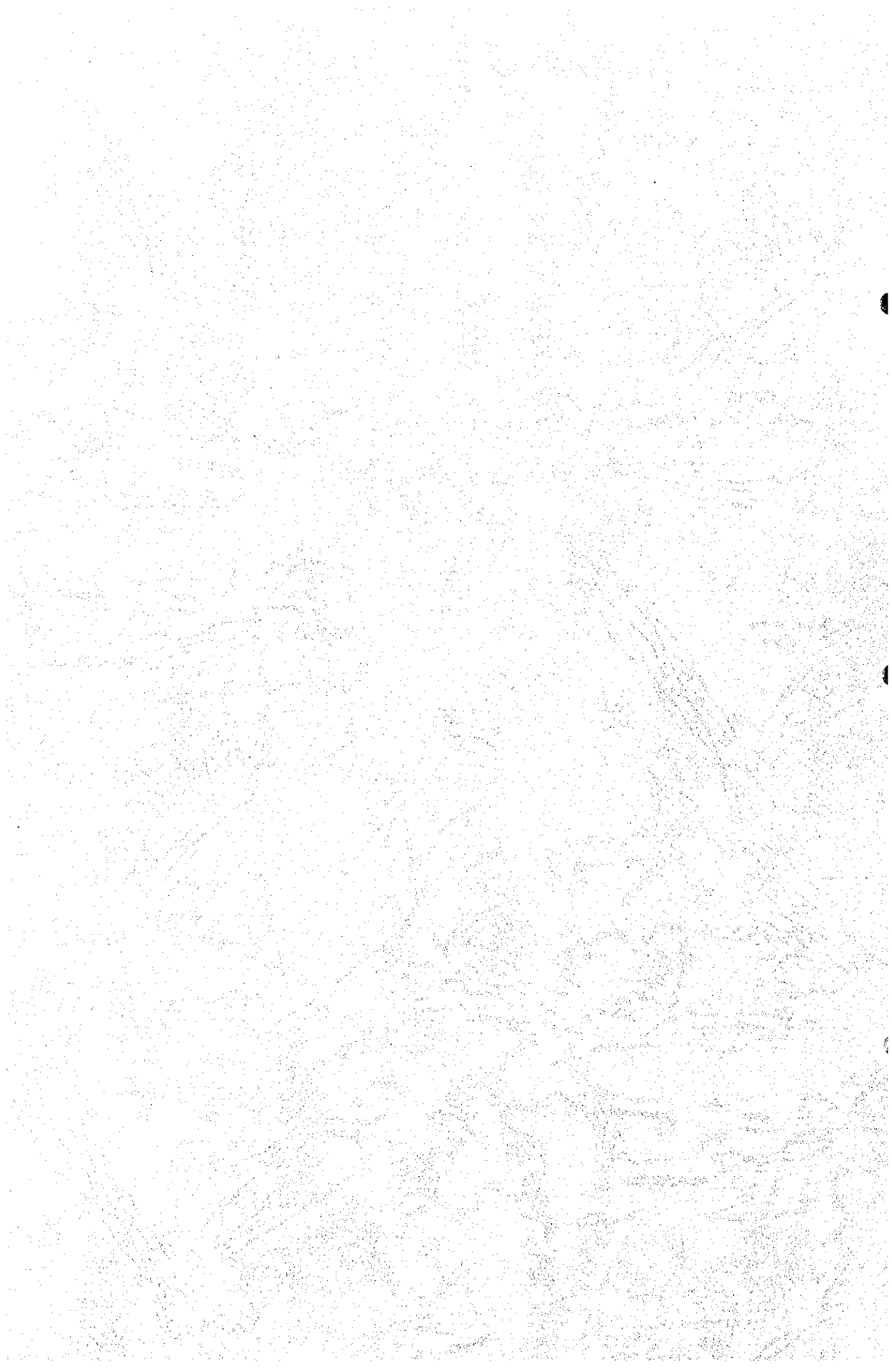
**FIGURE**













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