

## *Appendices*

***APPENDIX 8-1***

***Priced Bill of Quantities for***

***Package-1***

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (1/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
0	GENERAL ITEM						
/ 01	Construction, maintenance and subsequent removal of temporary access roads including temporary bridges to various working areas	L.S.	0.159	10,900.00	6,800.00	1,733	1,081
/ 02	Maintenance of existing public roads utilized for construction purpose, including temporary supports to strengthen existing roads, waterways, piers and abutments of bridges, and traffic control	L.S.	0.159	25,700.00	15,300.00	4,086	2,433
/ 03	Construction, operation, maintenance and subsequent removal of the Engineer's office	L.S.	0.159	0.00	62,400.00	0	9,922
/ 04	Furnishing of office furniture required for the temporary Engineer's office	P.S.	0.159	2,000.00	2,300.00	318	366
/ 05	Construction, operation, maintenance and subsequent removal of the Contractor's temporary buildings and facilities, including offices, staff quarter, labor camps, motor pool, repair shop, warehouses, work shops, guard house, fence, and rental fee of land	L.S.	0.159	52,400.00	159,500.00	8,332	25,361
/ 06	Construction, operation, maintenance and subsequent removal of the Contractor's laboratory, including provision of necessary testing instruments and apparatus	L.S.	0.159	15,500.00	7,800.00	2,465	1,240
/ 07	Provision of first aid kit boxes in all sites and an ambulance with driver	L.S.	0.159	28,800.00	20,200.00	4,579	3,212
/ 08	Installation, operation, maintenance and subsequent removal of temporary water supply system including drainage and sewage systems	L.S.	0.159	14,770.00	17,120.00	2,348	2,722
/ 09	Installation, operation, maintenance and subsequent removal of temporary electric supply system	L.S.	0.159	90,950.00	16,030.00	14,461	2,549
/ 10	Installation, operation, maintenance and subsequent removal of temporary telecommunication system connecting with office, work shops and construction sites	L.S.	0.159	36,520.00	17,400.00	5,807	2,767
/ 11	Boreholes and exploratory excavation	P.S.	0.159	1,540.00	880.00	245	140

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (2/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	All risk insurance of works for permanent and temporary facilities, and insurance for third parties	L.S.	0.159	10,600.00	7,200.00	1,685	1,145
/ 13	Provision of safety equipment and instruments for laborers, and installation, maintenance and subsequent removal of safety instruments and sign boards	L.S.	0.159	10,000.00	5,000.00	1,590	795
/ 14	Furnishing of survey equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.159	3,670.00	980.00	584	156
/ 15	Furnishing, operation and maintenance of transportation equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.159	53,760.00	15,840.00	8,548	2,519
/ 16	Topographic survey	P.S.	0.159	62,000.00	66,500.00	9,858	10,574
/ 17	Site clearance in acquired areas with houses and other buildings	L.S.	45.207	1.01	0.62	45,659	28,028
<b>TOTAL OF ITEM NO.0</b>						<b>112,298</b>	<b>95,010</b>
1	<b>RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES</b>						
/ 01	Public utilities subject to relocation/reconstruction for electricity facilities	P.S.	1	0.00	11,700.00	0	11,700
/ 02	Public utilities subject to relocation/reconstruction for water supply/drainage facilities	P.S.	1	0.00	5,000.00	0	5,000
/ 03	Public utilities subject to relocation/reconstruction for communication facilities	P.S.	1	0.00	0.00	0	0
<b>TOTAL OF ITEM NO.1</b>						<b>0</b>	<b>16,700</b>

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (3/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
<b>2 DRAINAGE CHANNEL</b>							
2.1	Drainage Channel	cu.m	59.975	2.53	1.38	151,737	82,766
/ 01	Excavation	cu.m	0	3.81	3.51	0	0
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	786	3.23	2.47	2,539	1,941
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m					
	Sub-total of Item No. 2.1					154,276	84,707
<b>2.2 Levee and Inspection/Relocation Road</b>							
/ 01	Coffering and care of water including dewatering	L.S.	1	4,450.00	3,630.00	4,450	3,630
/ 02	Stripping, grubbing and clearing	sq.m	9,352	0.86	0.47	8,043	4,395
/ 03	Excavation	cu.m	9,573	2.53	1.38	24,220	13,211
/ 04	Embankment	cu.m	8,886	3.53	2.34	31,368	20,793
/ 05	Filling-up by random material	cu.m	591	0.30	1.10	177	650
/ 06	Geo-textile, t=1.5mm	sq.m	16,022	0.71	1.49	11,376	23,873
/ 07	Sod facing	sq.m	3,325	0.02	1.43	67	4,755
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	11,837	29.00	13.10	343,273	155,065
/ 09	Sub-base course	cu.m	495	6.30	2.80	3,119	1,386
/ 10	Base course	cu.m	371	9.60	4.00	3,562	1,484
/ 11	Asphalt pavement	sq.m	2,472	3.60	2.40	8,899	5,933
	Sub-total of Item No. 2.2					438,554	255,175
<b>2.3 Concrete Parapet Wall</b>							
/ 01	Excavation for footing of parapet wall	cu.m	0	2.53	1.38	0	0
/ 02	Back filling with selected material	cu.m	0	0.40	1.30	0	0
/ 03	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	0	29.00	13.10	0	0
/ 04	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	0	74.64	8.30	0	0
/ 05	Driving steel sheet pile, for Item No. 2.3/04	sq.m	0	10.93	3.82	0	0
/ 06	Furnishing RC piles, 250 x 250 mm	lin.m	0	6.93	4.17	0	0
/ 07	Driving RC piles, for Item No. 2.3/06	lin.m	0	7.44	2.40	0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (4/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 08	Concrete, type 4, for footing and wall	cu.m	0	51.95	23.75	0	0
/ 09	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 10	Form, type F1, for Item No. 2.3/08	sq.m	0	1.99	7.08	0	0
/ 11	Form, type F2, for Item No. 2.3/08	sq.m	0	2.54	11.22	0	0
/ 12	Reinforcing bars, for Item No. 2.3/08	kg	0	0.44	0.16	0	0
/ 13	PVC waterstop, W=200 mm	lin.m	0	5.25	2.85	0	0
/ 14	Rubber joint filler, t=10 mm	sq.m	0	7.16	6.30	0	0
/ 15	Bituminous coating	sq.m	0	0.70	0.90	0	0
/ 16	Furnishing and installing trap	kg	0	0.57	0.35	0	0
	Sub-total of Item No. 2.3					0	0
2.4	Heightening of Existing Masonry Revement						
/ 01	Wet cobble/rubble masonry, type 1	cu.m	0	18.60	14.50	0	0
	Sub-total Item No. 2.4					0	0
2.5	Masonry Revement, Type I						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Excavation	cu.m	191	2.53	1.38	483	264
/ 03	Back filling	cu.m	11	0.40	1.30	4	14
/ 04	Geo-textile, t=1.5 mm	sq.m	2	0.71	1.49	1	3
/ 05	Gravel bedding	cu.m	20	8.76	4.40	175	88
/ 06	Cobble/rubble filling	cu.m	7	8.76	4.40	61	31
/ 07	Wet cobble/rubble masonry, type 1	cu.m	45	18.60	14.50	800	624
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	44	29.00	13.10	1,276	576
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	13	2.20	0.80	29	10
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	lin.m	48	3.90	2.48	187	119
/ 11	Concrete, type 4, for foundation	cu.m	8	51.95	23.75	416	190
/ 12	Concrete, type 5, for leveling	cu.m	3	46.67	21.49	140	64
/ 13	Form, type F2, for Item No. 2.5/11	sq.m	38	2.54	11.22	97	426
/ 14	Reinforcing bars, for Item No. 2.5/11	kg	285	0.44	0.16	125	46

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (5/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 15	Rubber joint filler, t=10 mm	sq.m	8	7.16	6.30	57	50
	Sub-total Item No. 2.5					3,851	2,505
2.6	Masonry Revement, type II	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	0	2.53	1.38	0	0
/ 02	Excavation	cu.m	0	0.40	1.30	0	0
/ 03	Back filling	sq.m	0	0.71	1.49	0	0
/ 04	Geo-textile, t=1.5 mm	cu.m	0	8.76	4.40	0	0
/ 05	Gravel bedding	cu.m	0	8.76	4.40	0	0
/ 06	Cobble/rubble filling	cu.m	0	18.60	14.50	0	0
/ 07	Wet cobble/rubble masonry, type I	cu.m	0	29.00	13.10	0	0
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	lin.m	0	2.20	0.80	0	0
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	0	3.90	2.48	0	0
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	0	51.95	23.75	0	0
/ 11	Concrete, type 4, for foundation	cu.m	0	46.67	21.49	0	0
/ 12	Concrete, type 5, for leveling	sq.m	0	2.54	11.22	0	0
/ 13	Form, type F2, for Item No. 2.6/16	kg	0	0.44	0.16	0	0
/ 14	Reinforcing bars, for Item No. 2.6/11	sq.m	0	7.16	6.30	0	0
/ 15	Rubber joint filler, t=10 mm						
	Sub-total Item No. 2.6					0	0
2.7	Concrete Ditch and Culvert	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	0	2.53	1.38	0	0
/ 02	Excavation of channel including trench cut	cu.m	0	8.76	4.40	0	0
/ 03	Rubble bedding	sq.m	0	0.71	1.49	0	0
04	Geo-textile, t=1.5mm	cu.m	0	0.40	1.30	0	0
/ 05	Back filling	cu.m	0	8.65	4.47	0	0
/ 06	Gravel filter	lin.m	0	2.20	0.80	0	0
/ 07	PVC pipe for weep hole, diam. 50 mm	cu.m	0	29.00	13.10	0	0
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire						

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (6/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 09	Concrete, type 4, for ditch and culvert	cu.m	0	51.95	23.75	0	0
/ 10	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 11	Form, type F1, for Item Nos. 2.7/09 and 2.7/10	sq.m	0	1.99	7.08	0	0
/ 12	Form, type F2, for Item Nos. 2.7/09 and 2.7/10	sq.m	0	2.54	11.22	0	0
/ 13	Reinforcing bars, for Item Nos. 2.7/09 and 2.7/10	kg	0	0.44	0.16	0	0
/ 14	PVC waterstop, W=200mm	lin.m	0	5.25	2.85	0	0
/ 15	Joint bar, diam. 25 mm, L=1m	nos.	0	0.56	0.19	0	0
/ 16	Bitumen coating	sq.m	0	0.70	0.90	0	0
	Sub-total of Item No. 2.7					0	0
	<b>TOTAL OF ITEM NO.2</b>					596.681	322.387
<b>3</b>	<b>DRAINAGE FACILITIES</b>						
3.1	Sluiceway						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Excavation including trench cut	cu.m	0	2.53	1.38	0	0
/ 03	Back filling with selected materials	cu.m	0	0.40	1.30	0	0
/ 04	Geo-textile, t=1.5 mm	sq.m	0	0.71	1.49	0	0
/ 05	Gravel bedding	cu.m	0	8.76	4.40	0	0
/ 06	Cobble/rubble filling	cu.m	0	8.76	4.40	0	0
/ 07	Wet cobble/rubble masonry, type 2	cu.m	0	25.90	30.40	0	0
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	0	29.00	13.10	0	0
/ 09	PVC pipe for weep hole, diam. 50mm	lin.m	0	2.20	0.80	0	0
/ 10	Bitumen coating	sq.m	0	0.70	0.90	0	0
/ 11	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	0	74.64	8.30	0	0
/ 12	Driving of steel sheet pile, for Item No. 3.1/11	sq.m	0	10.93	3.82	0	0
/ 13	Furnishing RC Piles, 250 mm x 250 mm	lin.m	0	6.93	4.17	0	0
/ 14	Driving of RC piles, for Item No. 3.1/13	sq.m	0	7.44	2.40	0	0
/ 15	Concrete, type 3, for blockout concrete	cu.m	0	52.68	24.06	0	0
/ 16	Concrete, type 4, for sluiceway structures & revetment	cu.m	0	51.95	23.75	0	0
/ 17	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0



**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (7/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 18	Base mortar	cu.m	0	42.30	64.30	0	0
/ 19	Form, type F1, for Item Nos. 3.1/15 and 3.1/16	sq.m	0	1.99	7.08	0	0
/ 20	Form, type F2, for Item Nos. 3.1/15 and 3.1/16	sq.m	0	4.53	11.22	0	0
/ 21	Reinforcing bars, for Item Nos. 3.1/15 and 3.1/16	kg	0	0.44	0.16	0	0
/ 22	Joint bars, diam. 25mm, L=1m	nos.	0	0.56	0.19	0	0
/ 23	PVC waterstop, W=200mm	lin.m	0	5.25	2.85	0	0
/ 24	Rubber joint filler, t= 10 mm	sq.m	0	7.16	6.30	0	0
/ 25	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.7 m x H = 0.7 m	set	0	2,668.00	297.00	0	0
/ 26	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.8 m x H = 0.8 m	set	0	3,068.00	341.00	0	0
/ 27	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.9 m x H = 0.9 m	set	0	3,149.00	350.00	0	0
/ 28	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.0 m x H = 1.0 m	set	0	3,413.00	380.00	0	0
/ 29	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.1 m x H = 1.1 m	set	0	3,705.00	412.00	0	0
/ 30	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.2 m x H = 1.2 m	set	0	3,975.00	442.00	0	0
/ 31	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.3 m x H = 1.3 m	set	0	4,375.00	487.00	0	0
/ 32	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.5 m x H = 1.3 m	set	0	4,580.00	509.00	0	0
/ 33	Steel flap gate including guide frame, accessories and spare parts, W= 0.4 m x H = 0.4 m	set	0	461.00	52.00	0	0
/ 34	Timber stoplog, W = 0.4 m x H = 0.4 m	set	0	48.00	48.00	0	0
/ 35	Timber stoplog, W = 0.7 m x H = 0.7 m	set	0	146.00	146.00	0	0
/ 36	Timber stoplog, W = 0.8 m x H = 0.8 m	set	0	191.00	191.00	0	0
/ 37	Timber stoplog, W = 0.9 m x H = 0.9 m	set	0	242.00	242.00	0	0
/ 38	Timber stoplog, W = 1.0 m x H = 1.0 m	set	0	298.00	298.00	0	0
/ 39	Timber stoplog, W = 1.1 m x H = 1.1 m	set	0	361.00	361.00	0	0
/ 40	Timber stoplog, W = 1.2 m x H = 1.2 m	set	0	429.00	429.00	0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (8/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 41	Timber stoplog, W = 1.3 m x H = 1.3 m	set	0	504.00	504.00	0	0
/ 42	Timber stoplog, W = 1.5m x H = 1.3 m	set	0	581.00	581.00	0	0
/ 43	Maintenance tool for gate, stoplog and hoist	set	0	115.00	13.00	0	0
	<b>Sub-total of Item No. 3.1</b>					0	0
<b>3.2</b>	<b>Connection Canal / Cross Drain</b>						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Trench excavation	cu.m	105	3.28	1.89	344	198
/ 03	Back filling with excavated materials	cu.m	21	0.40	1.30	8	27
/ 04	Geo-textile, t= 1.5 mm	sq.m	0	0.71	1.49	0	0
/ 05	Gravel bedding	cu.m	17	8.76	4.40	149	75
/ 06	Concrete, type 4, for slab, strut and facing concrete of wet rubble masonry	cu.m	0	51.95	23.75	0	0
/ 07	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 08	Form, type F2, for Item No. 3.2/06	sq.m	0	2.54	8.75	0	0
/ 09	Reinforcing bars, for Item No. 3.2/06	kg	0	0.44	0.16	0	0
/ 10	Rubber joint filler, t = 10 mm	sq.m	0	7.16	6.30	0	0
/ 11	Precast concrete culvert, 400x400mm	lin.m	0	25.40	12.20	0	0
/ 12	Precast concrete side ditch, U-type, 400x400mm	lin.m	421	15.90	8.20	6,694	3,452
/ 13	Precast concrete side ditch, L-type, 300x300mm	lin.m	0	7.50	3.90	0	0
	<b>Sub-total of Item No. 3.2</b>					7,195	3,752
	<b>TOTAL OF ITEM NO. 3</b>					7,195	3,752
<b>4</b>	<b>BRIDGE AND ROAD</b>						
<b>4.1</b>	<b>Care of River</b>						
/ 01	Coffering and care of water including dewatering	L.S.	1	4,490.00	1,610.00	4,490	1,610
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	11	3.81	3.51	42	39
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	21	3.23	2.47	68	52
	<b>Sub-total of Item No. 4.1</b>					4,600	1,701

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (9/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
4.2	Foundation and Substructure						
/ 01	Furnishing and driving test PC pile, 350 mm, A type, L= 10 m	nos.	0	299.00	124.00	0	0
/ 02	Furnishing and driving test PC pile, 350 mm, A type, L= 11 m	nos.	0	313.00	130.00	0	0
/ 03	Furnishing and driving test PC pile, 350 mm, A type, L= 12 m	nos.	1	328.00	136.00	328	136
/ 04	Furnishing and driving test PC pile, 350 mm, A type, L= 13 m	nos.	0	342.00	142.00	0	0
/ 05	Furnishing and driving test PC pile, 350 mm, A type, L= 14 m	nos.	0	358.00	148.00	0	0
/ 06	Furnishing and driving test PC pile, 350 mm, A type, L= 15 m	nos.	0	372.00	155.00	0	0
/ 07	Furnishing and driving test PC pile, 350 mm, A type, L= 18 m	nos.	0	415.00	173.00	0	0
/ 08	Furnishing and driving test PC pile, 350 mm, B type, L= 18 m	nos.	0	485.00	203.00	0	0
/ 09	Furnishing PC pile, 350 mm, A type, L= 10 m	nos.	0	140.00	60.00	0	0
/ 10	Driving PC piles, for Item No. 4.2/09	lin.m	0	8.30	4.38	0	0
/ 11	Furnishing PC pile, 350 mm, A type, L= 11 m	nos.	0	155.00	66.00	0	0
/ 12	Driving PC piles, for Item No. 4.2/11	lin.m	0	7.55	3.98	0	0
/ 13	Furnishing PC pile, 350 mm, A type, L= 12 m	nos.	7	169.00	72.00	1,183	504
/ 14	Driving PC piles, for Item No. 4.2/13	lin.m	70	10.38	4.87	727	341
/ 15	Furnishing PC pile, 350 mm, A type, L= 13 m	nos.	0	183.00	78.00	0	0
/ 16	Driving PC piles, for Item No. 4.2/15	lin.m	0	9.59	4.50	0	0
/ 17	Furnishing PC pile, 350 mm, A type, L= 14 m	nos.	0	197.00	84.00	0	0
/ 18	Driving PC piles, for Item No. 4.2/17	lin.m	0	8.90	4.17	0	0
/ 19	Furnishing PC pile, 350 mm, A type, L= 15 m	nos.	0	211.00	90.00	0	0
/ 20	Driving PC piles, for Item No. 4.2/19	lin.m	0	8.31	3.90	0	0
/ 21	Furnishing PC pile, 350 mm, A type, L= 18 m	nos.	0	254.00	109.00	0	0
/ 22	Driving PC piles, for Item No. 4.2/21	lin.m	0	6.92	3.25	0	0
/ 23	Furnishing PC pile, 350 mm, B type, L= 12 m	nos.	12	209.00	90.00	2,508	1,080
/ 24	Driving PC piles, for Item No. 4.2/23	lin.m	162	10.38	4.87	1,682	789
/ 25	Furnishing PC pile, 350 mm, B type, L= 13 m	nos.	0	227.00	97.00	0	0
/ 26	Driving PC piles, for Item No. 4.2/25	lin.m	0	9.59	4.50	0	0
/ 27	Furnishing PC pile, 350 mm, B type, L= 18 m	nos.	0	315.00	135.00	0	0
/ 28	Driving PC piles, for Item No. 4.2/27	lin.m	0	6.92	3.25	0	0
/ 29	Furnishing PC pile, 400 mm, B type, L= 11 m	nos.	0	252.00	108.00	0	0
/ 30	Driving PC piles, for Item No. 4.2/29	lin.m	0	7.55	3.99	0	0
/ 31	Furnishing PC pile, 400 mm, B type, L= 12 m	nos.	0	276.00	118.00	0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (10/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 32	Driving PC piles, for Item No. 4.2/31	lin.m	0	10.39	4.88	0	0
/ 33	Furnishing PC pile, 400 mm, B type, L= 14 m	nos.	0	322.00	138.00	0	0
/ 34	Driving PC piles, for Item No. 4.2/33	lin.m	0	8.90	4.18	0	0
/ 35	Concrete, type 2, for bridge slab, pier and abutment	cu.m	25	53.78	24.54	1,345	614
/ 36	Concrete, type 5, for leveling, t = 10 cm.	cu.m	1	46.67	21.49	47	21
/ 37	Form, type F1, for Item Nos. 4.2/35 and 4.2/36	sq.m	52	1.99	7.08	103	368
/ 38	Reinforcing bars, for Item No. 4.2/35	kg	2,661	0.44	0.16	1,171	426
	<b>Sub-total of Item No. 4.2</b>					<b>9,094</b>	<b>4,279</b>
<b>4.3</b>	<b>Superstructure</b>						
/ 01	Furnish and erection of PC girder, H=400mm, L=7.3m, BM-70	pc.	0	459.00	210.00	0	0
/ 02	Furnish and erection of PC girder, H=450mm, L=8.4m, BM-70	pc.	0	591.00	267.00	0	0
/ 03	Furnish and erection of PC girder, H=450mm, L=10.5m, BM-70	pc.	0	747.00	335.00	0	0
/ 04	Furnish and erection of PC girder, H=450mm, L=11.9m, BM-70	pc.	0	842.00	376.00	0	0
/ 05	Furnish and erection of PC girder, H=500mm, L=13.35m, BM-70	pc.	0	1,071.00	466.00	0	0
/ 06	Furnish and erection of PC girder, H=500mm, L=14.15m, BM-70	pc.	0	1,131.00	492.00	0	0
/ 07	Furnish and erection of PC girder, H=550mm, L=14.9m, BM-70	pc.	18	1,305.00	568.00	23,490	10,224
/ 08	Furnish and erection of PC girder, H=500mm, L=12.9m, BM-100	pc.	0	1,037.00	452.00	0	0
/ 09	Furnish and erection of PC girder, H=350mm, L=7.3m, Pedestrian	pc.	0	404.00	186.00	0	0
/ 10	Furnish and erection of PC girder, H=350mm, L=8.4m, Pedestrian	pc.	0	462.00	211.00	0	0
/ 11	Furnish and erection of PC girder, H=450mm, L=13.1m, Pedestrian	pc.	0	948.00	413.00	0	0
/ 12	PC tendon and ancillary materials	lin.m	347	4.26	1.00	1,478	347
/ 13	Concrete, type 2, for lateral girder, side wall and in-situ slab	cu.m	33	53.78	24.54	1,775	810
/ 14	Concrete, type 4, for side walk	cu.m	0	51.95	23.75	0	0
/ 15	Form, type F1, for Item Nos. 4.3/13 and 4.3/14	sq.m	170	3.86	8.86	656	1,506
/ 16	Reinforcing bars, for Item Nos. 4.3/13 and 4.3/14	kg	862	0.44	0.16	379	138
/ 17	Curb stone	lin.m	0	10.60	5.10	0	0
/ 18	Rubber bearing pad, t=33mm, W=150mm	lin.m	27.4	217.00	25.70	5,946	704
/ 19	Non-shrink mortar with grid bars, for shoe base	lit.	330.0	1.84	1.27	607	419
/ 20	Anchoring in fixed bearing shoe	nos.	15	12.02	6.48	180	97
/ 21	Anchoring in movable bearing shoe	nos.	15	10.60	6.31	159	95

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (11/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 22	Guard pipe for Road bridge, H=0.4m	lin.m	81.0	41.40	11.30	3,353	915
/ 23	Guard pipe for pedestrian bridge, H=1.0m	lin.m	0.0	174.00	27.00	0	0
/ 24	Drain pipe (D=100mm, L=84cm) with cap (300x150mm)	nos.	0	4.72	2.14	0	0
/ 25	Drain pipe, D=75mm, L=70cm	nos.	12	4.15	2.08	50	25
/ 26	Drain pipe, D=75mm, L=40cm	nos.	0	2.37	1.62	0	0
/ 27	Expansion joint, for road bridge	lin.m	18.4	306.00	42.00	5,630	773
/ 28	Expansion joint, for pedestrian and in-situ slab bridges	lin.m	0.0	342.00	46.00	0	0
/ 29	Asphalt pavement	cu.m	13	71.10	48.60	924	632
	Sub-total of Item No. 4.3					44,627	16,685
4.4	Approach Road						
/ 01	Removal of existing asphalt/base pavement	sq.m	717	3.23	2.47	2,316	1,771
/ 02	Excavation	cu.m	48	2.53	1.38	121	66
/ 03	Back filling	cu.m	44	0.40	1.30	18	57
/ 04	Wet rubble/cobble masonry for slope protection	cu.m	104	18.60	14.50	1,934	1,508
/ 05	Concrete, type 3, for approach step	cu.m	0	52.68	24.06	0	0
/ 06	Concrete, type 4, for side wall	cu.m	43	51.95	23.75	2,234	1,021
/ 07	Concrete, type 5, for foundation concrete	cu.m	15	46.67	21.49	700	322
/ 08	Form, type F1, for Item Nos. 4.4/05 and 4.4/06	sq.m	219	1.99	7.08	436	1,551
/ 09	Form, type F2, for Item Nos. 4.4/05 to 4.4/07	sq.m	30	2.54	8.75	76	263
/ 10	Reinforcing bars, for Item Nos. 4.4/05 and 4.4/06	kg	0	0.44	0.16	0	0
/ 11	Precast concrete drain block, type 5a	nos.	357	6.40	3.40	2,285	1,214
/ 12	Precast concrete side ditch, 300 x 300 mm	lin.m	214	12.20	6.40	2,611	1,370
/ 13	Embankment and sub-grade	cu.m	126	3.53	2.34	445	295
/ 14	Sub-base course	cu.m	109	6.30	2.80	687	305
/ 15	Base course	cu.m	82	9.60	4.00	787	328
/ 16	Asphalt pavement	cu.m	28	71.10	48.60	1,991	1,361
/ 17	Guardrail, concrete post	lin.m	0	3.09	2.07	0	0
	Sub-total of Item No. 4.4					16,641	11,432
	<b>TOTAL OF ITEM NO. 4</b>					<b>74,962</b>	<b>34,097</b>
	<b>SUMMARY OF AMOUNT</b>						

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE I (12/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
No. 0	GENERAL ITEM					112,298	95,010
No. 1	RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES					0	16,700
No. 2	DRAINAGE CHANNEL					596,681	322,387
No. 3	DRAINAGE FACILITIES					7,195	3,752
No. 4	BRIDGE AND ROAD					74,962	34,097
	TOTAL OF CONSTRUCTION COST					791,136	471,946
	EQUIVALENT TO (US\$)					1,263,082	

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (1/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
0	<b>GENERAL ITEM</b>						
/ 01	Construction, maintenance and subsequent removal of temporary access roads including temporary bridges to various working areas	L.S.	0.434	10,900.00	6,800.00	4,731	2,951
/ 02	Maintenance of existing public roads utilized for construction purpose, including temporary supports to strengthen existing roads, waterways, piers and abutments of bridges, and traffic control	L.S.	0.434	25,700.00	15,300.00	11,154	6,640
/ 03	Construction, operation, maintenance and subsequent removal of the Engineer's office	L.S.	0.434	0.00	62,400.00	0	27,082
/ 04	Furnishing of office furniture required for the temporary Engineer's office	P.S.	0.434	2,000.00	2,300.00	868	998
/ 05	Construction, operation, maintenance and subsequent removal of the Contractor's temporary buildings and facilities, including offices, staff quarter, labor camps, motor pool, repair shop, warehouses, work shops, guard house, fence, and rental fee of land	L.S.	0.434	52,400.00	159,500.00	22,742	69,223
/ 06	Construction, operation, maintenance and subsequent removal of the Contractor's laboratory, including provision of necessary testing instruments and apparatus	L.S.	0.434	15,500.00	7,800.00	6,727	3,385
/ 07	Provision of first aid kit boxes in all sites and an ambulance with driver	L.S.	0.434	28,800.00	20,200.00	12,499	8,767
/ 08	Installation, operation, maintenance and subsequent removal of temporary water supply system including drainage and sewage systems	L.S.	0.434	14,770.00	17,120.00	6,410	7,430
/ 09	Installation, operation, maintenance and subsequent removal of temporary electric supply system	L.S.	0.434	90,950.00	16,030.00	39,472	6,957
/ 10	Installation, operation, maintenance and subsequent removal of temporary telecommunication system connecting with office, work shops and construction sites	L.S.	0.434	36,520.00	17,400.00	15,850	7,552
/ 11	Boreholes and exploratory excavation	P.S.	0.434	1,540.00	880.00	668	382

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (2/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	All risk insurance for permanent and temporary facilities, and insurance for third parties	L.S.	0.434	10,600.00	7,200.00	4,600	3,125
/ 13	Provision of safety equipment and instruments for laborers, and installation, maintenance and subsequent removal of safety instruments and sign boards	L.S.	0.434	10,000.00	5,000.00	4,340	2,170
/ 14	Furnishing of survey equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.434	3,670.00	980.00	1,593	425
/ 15	Furnishing, operation and maintenance of transportation equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.434	53,760.00	15,840.00	23,352	6,875
/ 16	Topographic survey	P.S.	0.434	62,000.00	66,500.00	26,908	28,861
/ 17	Site clearance in acquired areas with houses and other buildings	L.S.	64,380	1.01	0.62	65,024	39,916
	<b>TOTAL OF ITEM NO.0</b>					<b>246,918</b>	<b>222,739</b>
1	<b>RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES</b>						
/ 01	Public utilities subject to relocation/reconstruction for electricity facilities	P.S.	1	0.00	218,400.00	0	218,400
/ 02	Public utilities subject to relocation/reconstruction for water supply/drainage facilities	P.S.	1	0.00	0.00	0	0
/ 03	Public utilities subject to relocation/reconstruction for communication facilities	P.S.	1	0.00	130,820.00	0	130,820
	<b>TOTAL OF ITEM NO.1</b>					<b>0</b>	<b>349,220</b>



**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (3/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
<b>2</b>	<b>DRAINAGE CHANNEL</b>						
2.1	Drainage Channel	cu.m	89,479	2.53	1.38	226,382	123,481
/ 01	Excavation	cu.m	28	3.81	3.51	107	98
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	1,521	3.23	2.47	4,913	3,757
/ 03	Demolishing, hauling and disposing asphalt/masonry structures						
	Sub-total of Item No. 2.1					231,402	127,336
<b>2.2</b>	<b>Levee and Inspection/Relocation Road</b>						
/ 01	Coffering and care of water including dewatering	L.S.	1	4,450.00	3,630.00	4,450	3,630
/ 02	Stripping, grubbing and clearing	sq.m	17,250	0.86	0.47	14,835	8,108
/ 03	Excavation	cu.m	9,410	2.53	1.38	23,807	12,986
/ 04	Embankment	cu.m	14,071	3.53	2.34	49,671	32,926
/ 05	Filling-up by random material	cu.m	529	0.30	1.10	159	582
/ 06	Geo-textile, t=1.5mm	sq.m	14,309	0.71	1.49	10,159	21,320
/ 07	Sod facing	sq.m	5,234	0.02	1.43	105	7,485
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	10,579	29.00	13.10	306,791	138,585
/ 09	Sub-base course	cu.m	1,241	6.30	2.80	7,818	3,475
/ 10	Base course	cu.m	930	9.60	4.00	8,928	3,720
/ 11	Asphalt pavement	sq.m	6,197	3.60	2.40	22,309	14,873
	Sub-total of Item No. 2.2					449,052	247,690
<b>2.3</b>	<b>Concrete Parapet Wall</b>						
/ 01	Excavation for footing of parapet wall	cu.m	1,616	2.53	1.38	4,088	2,250
/ 02	Back filling with selected material	cu.m	726	0.40	1.50	290	944
/ 03	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	288	29.00	13.10	8,352	3,773
/ 04	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	1,726	74.64	8.30	128,829	14,326
/ 05	Driving steel sheet pile, for Item No. 2.3/04	sq.m	1,726	10.93	3.82	18,865	6,593
/ 06	Furnishing RC piles, 250 x 250 mm	lin.m	3,684	6.93	4.17	25,530	15,362
/ 07	Driving RC piles, for Item No. 2.3/06	lin.m	3,684	7.44	2.40	27,409	8,842

**BILL OF QUANTITIES FOR PACKAGE 1. STAGE II (4/12)**

Item No.	Description	Unit	Quantity		Unit Price (US\$)		Amount (US\$)	
			F.C.	L.C.	F.C.	L.C.		
/ 08	Concrete, type 4, for footing and wall	cu.m	707		51.95	23.75	36,729	16,791
/ 09	Concrete, type 5, for leveling	cu.m	114		46.67	21.49	5,320	2,450
/ 10	Form, type F1, for Item No. 2.3/08	sq.m	381		1.99	7.08	758	2,697
/ 11	Form, type F2, for Item No. 2.3/08	sq.m	1,427		2.54	11.22	3,625	16,011
/ 12	Reinforcing bars, for Item No. 2.3/08	kg	56,450		0.44	0.16	24,838	9,032
/ 13	PVC waterstop, W=200 mm	lin.m	1,955		5.25	2.85	10,264	5,572
/ 14	Rubber joint filler, t=10 mm	sq.m	2		7.16	6.30	14	13
/ 15	Bituminous coating	sq.m	119		0.70	0.90	83	107
/ 16	Furnishing and installing trap	kg	187		0.57	0.35	107	65
	Sub-total of Item No. 2.3						295,101	104,808
2.4	Heightening of Existing Masonry Revetment							
/ 01	Wet cobble/rubble masonry, type 1	cu.m	0		18.60	14.50	0	0
	Sub-total Item No. 2.4						0	0
2.5	Masonry Revetment, Type I							
/ 01	Coffering and care of water including dewatering	L.S.	1		5,340.00	4,350.00	5,340	4,350
/ 02	Excavation	cu.m	6,477		2.53	1.38	16,387	8,938
/ 03	Back filling	cu.m	540		0.40	1.30	216	702
/ 04	Geo-textile, t=1.5 mm	sq.m	90		0.71	1.49	64	134
/ 05	Gravel bedding	cu.m	890		8.76	4.40	7,796	3,916
/ 06	Cobble/rubble filling	cu.m	318		8.76	4.40	2,786	1,399
/ 07	Wet cobble/rubble masonry, type 1	cu.m	1,852		18.60	14.50	34,447	26,854
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	2,226		29.00	13.10	64,554	29,161
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	561		2.20	0.80	1,234	449
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	lin.m	2,250		3.90	2.48	8,775	5,580
/ 11	Concrete, type 4, for foundation	cu.m	371		51.95	23.75	19,273	8,811
/ 12	Concrete, type 5, for leveling	cu.m	150		46.67	21.49	7,001	3,224
/ 13	Form, type F2, for Item No. 2.5/11	sq.m	1,893		2.54	11.22	4,808	21,239
/ 14	Reinforcing bars, for Item No. 2.5/11	kg	14,714		0.44	0.16	6,474	2,354

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (5/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 15	Rubber joint filler, t=10 mm	sq.m	316	7.16	6.30	2,263	1,991
	<b>Sub-total Item No. 2.5</b>					181,418	119,102
2.6	<b>Masonry Revetment, type II</b>	L.S.	1	3,030.00	2,470.00	3,030	2,470
/ 01	Coffering and care of water including dewatering	cu.m	3,248	2.53	1.38	8,217	4,482
/ 02	Excavation	cu.m	290	0.40	1.30	116	377
/ 03	Back filling	sq.m	57	0.71	1.49	40	85
/ 04	Geo-textile, t=1.5 mm	cu.m	398	8.76	4.40	3,486	1,751
/ 05	Gravel bedding	cu.m	177	8.76	4.40	1,551	779
/ 06	Cobble/rubble filling	cu.m	1,494	18.60	14.50	27,788	21,663
/ 07	Wet cobble/rubble masonry, type I	cu.m	1,242	29.00	13.10	36,018	16,270
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	lin.m	354	2.20	0.80	779	283
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	1,248	3.90	2.48	4,867	3,095
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	205	51.95	23.75	10,650	4,869
/ 11	Concrete, type 4, for foundation	cu.m	85	46.67	21.49	3,967	1,827
/ 12	Concrete, type 5, for leveling	sq.m	1,070	2.54	11.22	2,718	12,005
/ 13	Form, type F2, for Item No. 2.6/16	kg	8,176	0.44	0.16	3,597	1,308
/ 14	Reinforcing bars, for Item No. 2.6/11	sq.m	250	7.16	6.30	1,790	1,575
/ 15	Rubber joint filler, t=10 mm						
	<b>Sub-total Item No. 2.6</b>					108,614	72,839
2.7	<b>Concrete Ditch and Culvert</b>	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	0	2.53	1.38	0	0
/ 02	Excavation of channel including trench cut	cu.m	0	8.76	4.40	0	0
/ 03	Rubble bedding	sq.m	0	0.71	1.49	0	0
04	Geo-textile, t=1.5mm	cu.m	0	0.40	1.30	0	0
/ 05	Back filling	cu.m	0	8.65	4.47	0	0
/ 06	Gravel filter	lin.m	0	2.20	0.80	0	0
/ 07	PVC pipe for weep hole, diam. 50 mm	cu.m	0	29.00	13.10	0	0
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire		0			0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (6/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 09	Concrete, type 4, for ditch and culvert	cu.m	0	51.95	23.75	0	0
/ 10	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 11	Form, type F1, for Item Nos. 2.7/09 and 2.7/10	sq.m	0	1.99	7.08	0	0
/ 12	Form, type F2, for Item Nos. 2.7/09 and 2.7/10	sq.m	0	2.54	11.22	0	0
/ 13	Reinforcing bars, for Item Nos. 2.7/09 and 2.7/10	kg	0	0.44	0.16	0	0
/ 14	PVC waterstop, W=200mm	lin.m	0	5.25	2.85	0	0
/ 15	Joint bar, diam. 25 mm, L=1m	nos.	0	0.56	0.19	0	0
/ 16	Bitumen coating	sq.m	0	0.70	0.90	0	0
	Sub-total of Item No. 2.7					0	0
	<b>TOTAL OF ITEM NO.2</b>					1,265,567	671,775
<b>3</b>	<b>DRAINAGE FACILITIES</b>						
3.1	Sluiceway	L.S.	1	2,320.00	1,890.00	2,320	1,890
/ 01	Coffering and care of water including dewatering	cu.m	1,594	2.53	1.38	4,033	2,200
/ 02	Excavation including trench cut	cu.m	453	0.40	1.30	181	589
/ 03	Back filling with selected materials	sq.m	13	0.71	1.49	9	19
/ 04	Geo-textile, t=1.5 mm	cu.m	135	8.76	4.40	1,183	594
/ 05	Gravel bedding	cu.m	31	8.76	4.40	272	136
/ 06	Cobble/rubble filling	cu.m	285	25.90	30.40	7,382	8,664
/ 07	Wet cobble/rubble masonry, type 2	cu.m	164	29.00	13.10	4,756	2,148
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	lin.m	25	2.20	0.80	55	20
/ 09	PVC pipe for weep hole, diam. 50mm	sq.m	4	0.70	0.90	3	4
/ 10	Bitumen coating	sq.m	247	74.64	8.30	18,436	2,050
/ 11	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	247	10.93	3.82	2,700	944
/ 12	Driving of steel sheet pile, for Item No. 3.1/11	lin.m	1,113	6.93	4.17	7,713	4,641
/ 13	Furnishing RC Piles, 250 mm x 250 mm	sq.m	1,113	7.44	2.40	8,281	2,671
/ 14	Driving of RC piles, for Item No. 3.1/13	cu.m	14	52.68	24.06	738	337
/ 15	Concrete, type 3, for blockout concrete	cu.m	273	51.95	23.75	14,182	6,484
/ 16	Concrete, type 4, for sluiceway structures & revetment	cu.m	42	46.67	21.49	1,960	903

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (7/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 18	Base mortar	cu.m	71	42.30	64.30	3,003	4,565
/ 19	Form, type F1, for Item Nos. 3.1/15 and 3.1/16	sq.m	1,472	1.99	7.08	2,929	10,422
/ 20	Form, type F2, for Item Nos. 3.1/15 and 3.1/16	sq.m	341	4.53	11.22	1,545	3,826
/ 21	Reinforcing bars, for Item Nos. 3.1/15 and 3.1/16	kg	32,157	0.44	0.16	14,149	5,145
/ 22	Joint bars, diam. 25mm, L=1m	nos.	10	0.56	0.19	6	2
/ 23	PVC waterstop, W=200mm	lin.m	10	5.25	2.85	53	29
/ 24	Rubber joint filler, t= 10 mm	sq.m	22	7.16	6.30	158	139
/ 25	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.7 m x H = 0.7 m	set	1	2,668.00	297.00	2,668	297
/ 26	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.8 m x H = 0.8 m	set	3	3,068.00	341.00	9,204	1,023
/ 27	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.9 m x H = 0.9 m	set	0	3,149.00	350.00	0	0
/ 28	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.0 m x H = 1.0 m	set	3	3,413.00	380.00	10,239	1,140
/ 29	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.1 m x H = 1.1 m	set	3	3,705.00	412.00	11,115	1,236
/ 30	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.2 m x H = 1.2 m	set	2	3,975.00	442.00	7,950	884
/ 31	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.3 m x H = 1.3 m	set	1	4,375.00	487.00	4,375	487
/ 32	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.5 m x H = 1.3 m	set	1	4,580.00	509.00	4,580	509
/ 33	Steel flap gate including guide frame, accessories and spare parts, W= 0.4 m x H = 0.4 m	set	0	461.00	52.00	0	0
/ 34	Timber stoplog, W = 0.4 m x H = 0.4 m	set	0	48.00	48.00	0	0
/ 35	Timber stoplog, W = 0.7 m x H = 0.7 m	set	1	146.00	146.00	146	146
/ 36	Timber stoplog, W = 0.8 m x H = 0.8 m	set	1	191.00	191.00	191	191
/ 37	Timber stoplog, W = 0.9 m x H = 0.9 m	set	0	242.00	242.00	0	0
/ 38	Timber stoplog, W = 1.0 m x H = 1.0 m	set	1	298.00	298.00	298	298
/ 39	Timber stoplog, W = 1.1 m x H = 1.1 m	set	1	361.00	361.00	361	361
/ 40	Timber stoplog, W = 1.2 m x H = 1.2 m	set	1	429.00	429.00	429	429

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (8/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 41	Timber stoplog, W = 1.3 m x H = 1.3 m	set	1	504.00	504.00	504	504
/ 42	Timber stoplog, W = 1.5m x H = 1.3 m	set	1	581.00	581.00	581	581
/ 43	Maintenance tool for gate, stoplog and hoist	set	2	115.00	13.00	230	26
	Sub-total of Item No. 3.1					148,918	66,534
3.2	Connection Canal / Cross Drain	L.S.	1	1,070.00	870.00	1,070	870
/ 01	Coffering and care of water including dewatering	cu.m	883	3.28	1.89	2,896	1,669
/ 02	Trench excavation	cu.m	172	0.40	1.30	69	224
/ 03	Back filling with excavated materials	sq.m	0	0.71	1.49	0	0
/ 04	Geo-textile, t= 1.5 mm	cu.m	145	8.76	4.40	1,270	638
/ 05	Gravel bedding	cu.m	0	51.95	23.75	0	0
/ 06	Concrete, type 4, for slab, strut and facing concrete of wet rubble masonry	cu.m	0	46.67	21.49	0	0
/ 07	Concrete, type 5, for leveling	sq.m	0	2.54	8.75	0	0
/ 08	Form, type F2, for Item No. 3.2/06	kg	0	0.44	0.16	0	0
/ 09	Reinforcing bars, for Item No. 3.2/06	sq.m	0	7.16	6.30	0	0
/ 10	Rubber joint filler, t = 10 mm	lin.m	4	25.40	12.20	102	49
/ 11	Precast concrete culvert, 400x400mm	lin.m	3,557	15.90	8.20	56,556	29,167
/ 12	Precast concrete side ditch, U-type, 400x400mm	lin.m	0	7.50	3.90	0	0
/ 13	Precast concrete side ditch, L-type, 300x300mm					61,963	32,617
	Sub-total of Item No. 3.2					210,881	99,151
	<b>TOTAL OF ITEM NO. 3</b>						
4	BRIDGE AND ROAD						
4.1	Care of River	L.S.	1	23,320.00	8,350.00	23,320	8,350
/ 01	Coffering and care of water including dewatering	cu.m	104	3.81	3.51	396	365
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	196	3.23	2.47	633	484
/ 03	Demolishing, hauling and disposing asphalt/masonry structures						
	Sub-total of Item No. 4.1					24,349	9,199

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (9/12)**

Item No.	Description	Unit	Quantity		Unit Price (US\$)		Amount (US\$)	
			F.C.	L.C.	F.C.	L.C.	F.C.	L.C.
4.2	Foundation and Substructure							
/ 01	Furnishing and driving test PC pile, 350 mm, A type, L= 10 m	nos.	0		299.00		0	0
/ 02	Furnishing and driving test PC pile, 350 mm, A type, L= 11 m	nos.	3		313.00		939	390
/ 03	Furnishing and driving test PC pile, 350 mm, A type, L= 12 m	nos.	2		328.00		656	272
/ 04	Furnishing and driving test PC pile, 350 mm, A type, L= 13 m	nos.	0		342.00		0	0
/ 05	Furnishing and driving test PC pile, 350 mm, A type, L= 14 m	nos.	1		358.00		358	148
/ 06	Furnishing and driving test PC pile, 350 mm, A type, L= 15 m	nos.	0		372.00		0	0
/ 07	Furnishing and driving test PC pile, 350 mm, A type, L= 18 m	nos.	0		415.00		0	0
/ 08	Furnishing and driving test PC pile, 350 mm, A type, L= 18 m	nos.	0		485.00		0	0
/ 09	Furnishing PC pile, 350 mm, A type, L= 10 m	nos.	0		140.00		0	0
/ 10	Driving PC piles, for Item No. 4.2/09	lin.m	0		8.30		0	0
/ 11	Furnishing PC pile, 350 mm, A type, L= 11 m	nos.	25		155.00		3,875	1,650
/ 12	Driving PC piles, for Item No. 4.2/11	lin.m	216		7.55		1,631	860
/ 13	Furnishing PC pile, 350 mm, A type, L= 12 m	nos.	18		169.00		3,042	1,296
/ 14	Driving PC piles, for Item No. 4.2/13	lin.m	180		10.38		1,868	877
/ 15	Furnishing PC pile, 350 mm, A type, L= 13 m	nos.	0		183.00		0	0
/ 16	Driving PC piles, for Item No. 4.2/15	lin.m	0		9.59		0	0
/ 17	Furnishing PC pile, 350 mm, A type, L= 14 m	nos.	15		197.00		2,955	1,260
/ 18	Driving PC piles, for Item No. 4.2/17	lin.m	180		8.90		1,602	751
/ 19	Furnishing PC pile, 350 mm, A type, L= 15 m	nos.	0		211.00		0	0
/ 20	Driving PC piles, for Item No. 4.2/19	lin.m	0		8.31		0	0
/ 21	Furnishing PC pile, 350 mm, A type, L= 18 m	nos.	0		254.00		0	0
/ 22	Driving PC piles, for Item No. 4.2/21	lin.m	0		6.92		0	0
/ 23	Furnishing PC pile, 350 mm, B type, L= 12 m	nos.	0		209.00		0	0
/ 24	Driving PC piles, for Item No. 4.2/23	lin.m	0		10.38		0	0
/ 25	Furnishing PC pile, 350 mm, B type, L= 13 m	nos.	0		227.00		0	0
/ 26	Driving PC piles, for Item No. 4.2/25	lin.m	0		9.59		0	0
/ 27	Furnishing PC pile, 350 mm, B type, L= 18 m	nos.	0		315.00		0	0
/ 28	Driving PC piles, for Item No. 4.2/27	lin.m	0		6.92		0	0
/ 29	Furnishing PC pile, 400 mm, B type, L= 11 m	nos.	8		252.00		2,016	864
/ 30	Driving PC piles, for Item No. 4.2/29	lin.m	60		7.55		453	239
/ 31	Furnishing PC pile, 400 mm, B type, L= 12 m	nos.	20		276.00		5,520	2,360

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (10/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 32	Driving PC piles, for Item No. 4.2/31	lin.m	170	10.39	4.88	1,766	830
/ 33	Furnishing PC pile, 400 mm, B type, L= 14 m	nos.	24	322.00	138.00	7,728	3,312
/ 34	Driving PC piles, for Item No. 4.2/33	lin.m	252	8.90	4.18	2,243	1,055
/ 35	Concrete, type 2, for bridge slab, pier and abutment	cu.m	168	53.78	24.54	9,035	4,123
/ 36	Concrete, type 5, for leveling, t = 10 cm.	cu.m	8	46.67	21.49	373	172
/ 37	Form, type F1, for Item Nos. 4.2/35 and 4.2/36	sq.m	332	1.99	7.08	661	2,351
/ 38	Reinforcing bars, for Item No. 4.2/35	kg	17,210	0.44	0.16	7,572	2,754
	Sub-total of Item No. 4.2					54,293	25,562
<b>4.3</b>	<b>Superstructure</b>						
/ 01	Furnish and erection of PC girder, H=400mm, L=7.3m, BM-70	pc.	0	459.00	210.00	0	0
/ 02	Furnish and erection of PC girder, H=450mm, L=8.4m, BM-70	pc.	0	591.00	267.00	0	0
/ 03	Furnish and erection of PC girder, H=450mm, L=10.5m, BM-70	pc.	18	747.00	335.00	13,446	6,030
/ 04	Furnish and erection of PC girder, H=450mm, L=11.9m, BM-70	pc.	0	842.00	376.00	0	0
/ 05	Furnish and erection of PC girder, H=500mm, L=13.35m, BM-70	pc.	36	1,071.00	466.00	38,556	16,776
/ 06	Furnish and erection of PC girder, H=500mm, L=14.15m, BM-70	pc.	48	1,131.00	492.00	54,288	23,616
/ 07	Furnish and erection of PC girder, H=550mm, L=14.9m, BM-70	pc.	0	1,305.00	568.00	0	0
/ 08	Furnish and erection of PC girder, H=500mm, L=12.9m, BM-100	pc.	18	1,037.00	452.00	18,666	8,136
/ 09	Furnish and erection of PC girder, H=350mm, L=7.3m, Pedestrian	pc.	0	404.00	186.00	0	0
/ 10	Furnish and erection of PC girder, H=350mm, L=8.4m, Pedestrian	pc.	0	462.00	211.00	0	0
/ 11	Furnish and erection of PC girder, H=450mm, L=13.1m, Pedestrian	pc.	9	948.00	413.00	8,532	3,717
/ 12	PC tendon and ancillary materials	lin.m	2,180	4.26	1.00	9,287	2,180
/ 13	Concrete, type 2, for lateral girder, side wall and in-situ slab	cu.m	189	53.78	24.54	10,164	4,638
/ 14	Concrete, type 4, for side walk	cu.m	41	51.95	23.75	2,130	974
/ 15	Form, type F1, for Item Nos. 4.3/13 and 4.3/14	sq.m	889	3.86	8.86	3,432	7,877
/ 16	Reinforcing bars, for Item Nos. 4.3/13 and 4.3/14	kg	5,769	0.44	0.16	2,538	923
/ 17	Curb stone	lin.m	188	10.60	5.10	1,993	959
/ 18	Rubber bearing pad, t=33mm, W=150mm	lin.m	192.3	217.00	25.70	41,729	4,942
/ 19	Non-shrink mortar with grid bars, for shoe base	lit.	2,290.0	1.84	1.27	4,214	2,908
/ 20	Anchoring in fixed bearing shoe	nos.	110	12.02	6.48	1,322	713
/ 21	Anchoring in movable bearing shoe	nos.	110	10.60	6.31	1,166	694



**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (11/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 22	Guard pipe for Road bridge, H=0.4m	lin.m	258.9	41.40	11.30	10,718	2,926
/ 23	Guard pipe for pedestrian bridge, H=1.0m	lin.m	218.7	174.00	27.00	38,054	5,905
/ 24	Drain pipe (D=100mm, L=84cm) with cap (300x150mm)	nos.	36	4.72	2.14	170	77
/ 25	Drain pipe, D=75mm, L=70cm	nos.	0	4.15	2.08	0	0
/ 26	Drain pipe, D=75mm, L=40cm	nos.	24	2.37	1.62	57	39
/ 27	Expansion joint, for road bridge	lin.m	104.8	306.00	42.00	32,069	4,402
/ 28	Expansion joint, for pedestrian and in-situ slab bridges	lin.m	30.0	342.00	46.00	10,260	1,380
/ 29	Asphalt pavement	cu.m	85	71.10	48.60	6,044	4,131
	Sub-total of Item No. 4.3					308,835	103,943
4.4	Approach Road						
/ 01	Removal of existing asphalt/base pavement	sq.m	3,591	3.23	2.47	11,599	8,870
/ 02	Excavation	cu.m	394	2.53	1.38	997	544
/ 03	Back filling	cu.m	352	0.40	1.30	141	458
/ 04	Wet rubble/cobble masonry for slope protection	cu.m	0	18.60	14.50	0	0
/ 05	Concrete, type 3, for approach step	cu.m	21	52.68	24.06	1,106	505
/ 06	Concrete, type 4, for side wall	cu.m	378	51.95	23.75	19,637	8,978
/ 07	Concrete, type 5, for foundation concrete	cu.m	120	46.67	21.49	5,600	2,579
/ 08	Form, type F1, for Item Nos. 4.4/05 and 4.4/06	sq.m	2,096	1.99	7.08	4,171	14,840
/ 09	Form, type F2, for Item Nos. 4.4/05 to 4.4/07	sq.m	249	2.54	8.75	632	2,179
/ 10	Reinforcing bars, for Item Nos. 4.4/05 and 4.4/06	kg	2,880	0.44	0.16	1,267	461
/ 11	Precast concrete drain block, type 5a	nos.	1,070	6.40	3.40	6,848	3,638
/ 12	Precast concrete side ditch, 300 x 300 mm	lin.m	903	12.20	6.40	11,017	5,779
/ 13	Embankment and sub-grade	cu.m	851	3.53	2.34	3,004	1,991
/ 14	Sub-base course	cu.m	613	6.30	2.80	3,862	1,716
/ 15	Base course	cu.m	461	9.60	4.00	4,426	1,844
/ 16	Asphalt pavement	cu.m	155	71.10	48.60	11,021	7,533
/ 17	Guardrail, concrete post	lin.m	60	3.09	2.07	185	124
	Sub-total of Item No. 4.4					85,513	62,039
	TOTAL OF ITEM NO. 4					472,990	200,743
	SUMMARY OF AMOUNT						

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE II (12/12)**

Item No.	Description	Unit	Quantity		Unit Price (US\$)		Amount (US\$)	
			F.C.	L.C.	F.C.	L.C.	F.C.	L.C.
No. 0	GENERAL ITEM						246,918	222,739
No. 1	RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES						0	349,220
No. 2	DRAINAGE CHANNEL						1,265,567	671,775
No. 3	DRAINAGE FACILITIES						210,881	99,151
No. 4	BRIDGE AND ROAD						472,990	200,743
	TOTAL OF CONSTRUCTION COST						2,196,356	1,543,628
	EQUIVALENT TO (US\$)						3,739,984	

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (1/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
0	<b>GENERAL ITEM</b>						
/ 01	Construction, maintenance and subsequent removal of temporary access roads including temporary bridges to various working areas	L.S.	0.407	10,900.00	6,800.00	4,436	2,768
/ 02	Maintenance of existing public roads utilized for construction purpose, including temporary supports to strengthen existing roads, waterways, piers and abutments of bridges, and traffic control	L.S.	0.407	25,700.00	15,300.00	10,460	6,227
/ 03	Construction, operation, maintenance and subsequent removal of the Engineer's office	L.S.	0.407	0.00	62,400.00	0	25,397
/ 04	Furnishing of office furniture required for the temporary Engineer's office	P.S.	0.407	2,000.00	2,300.00	814	936
/ 05	Construction, operation, maintenance and subsequent removal of the Contractor's temporary buildings and facilities, including offices, staff quarter, labor camps, motor pool, repair shop, warehouses, work shops, guard house, fence, and rental fee of land	L.S.	0.407	52,400.00	159,500.00	21,327	64,917
/ 06	Construction, operation, maintenance and subsequent removal of the Contractor's laboratory, including provision of necessary testing instruments and apparatus	L.S.	0.407	15,500.00	7,800.00	6,309	3,175
/ 07	Provision of first aid kit boxes in all sites and an ambulance with driver	L.S.	0.407	28,800.00	20,200.00	11,722	8,221
/ 08	Installation, operation, maintenance and subsequent removal of temporary water supply system including drainage and sewage systems	L.S.	0.407	14,770.00	17,120.00	6,011	6,968
/ 09	Installation, operation, maintenance and subsequent removal of temporary electric supply system	L.S.	0.407	90,950.00	16,030.00	37,017	6,524
/ 10	Installation, operation, maintenance and subsequent removal of temporary telecommunication system connecting with office, work shops and construction sites	L.S.	0.407	36,520.00	17,400.00	14,864	7,082
/ 11	Boreholes and exploratory excavation	P.S.	0.407	1,540.00	880.00	627	359

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (2/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	All risk insurance of works for permanent and temporary facilities, and insurance for third parties	L.S.	0.407	10,600.00	7,200.00	4,314	2,930
/ 13	Provision of safety equipment and instruments for laborers, and installation, maintenance and subsequent removal of safety instruments and sign boards	L.S.	0.407	10,000.00	5,000.00	4,070	2,035
/ 14	Furnishing of survey equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.407	3,670.00	980.00	1,492	398
/ 15	Furnishing, operation and maintenance of transportation equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.407	53,760.00	15,840.00	21,864	6,442
/ 16	Topographic survey	P.S.	0.407	62,000.00	66,500.00	25,203	27,032
/ 17	Site clearance in acquired areas with houses and other buildings	L.S.	49.841	1.01	0.62	50,339	30,901
	<b>TOTAL OF ITEM NO.0</b>					220,869	202,312
1	<b>RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES</b>						
/ 01	Public utilities subject to relocation/reconstruction for electricity facilities	P.S.	1	0.00	206,700.00	0	206,700
/ 02	Public utilities subject to relocation/reconstruction for water supply/drainage facilities	P.S.	1	0.00	0.00	0	0
/ 03	Public utilities subject to relocation/reconstruction for communication facilities	P.S.	1	0.00	4,410.00	0	4,410
	<b>TOTAL OF ITEM NO.1</b>					0	211,110

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (3/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
<b>2</b>	<b>DRAINAGE CHANNEL</b>						
2.1	Drainage Channel	cu.m	55,998	2.53	1.38	141,675	77,277
/ 01	Excavation	cu.m	20	3.81	3.51	76	70
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	2,826	3.23	2.47	9,128	6,980
/ 03	Demolishing, hauling and disposing asphalt/masonry structures						
	Sub-total of Item No. 2.1					150,879	84,327
<b>2.2</b>	<b>Levee and Inspection/Relocation Road</b>						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Stripping, grubbing and clearing	sq.m	10,495	0.86	0.47	9,026	4,933
/ 03	Excavation	cu.m	1,966	2.53	1.38	4,974	2,713
/ 04	Embankment	cu.m	7,855	3.53	2.34	27,728	18,381
/ 05	Filling-up by random material	cu.m	26	0.30	1.10	8	29
/ 06	Geo-textile, t=1.5mm	sq.m	657	0.71	1.49	466	979
/ 07	Sod facing	sq.m	2,959	0.02	1.43	59	4,231
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	495	29.00	13.10	14,355	6,485
/ 09	Sub-base course	cu.m	1,827	6.30	2.80	11,510	5,116
/ 10	Base course	cu.m	1,371	9.60	4.00	13,162	5,484
/ 11	Asphalt pavement	sq.m	9,125	3.60	2.40	32,850	21,900
	Sub-total of Item No. 2.2					114,138	70,251
<b>2.3</b>	<b>Concrete Parapet Wall</b>						
/ 01	Excavation for footing of parapet wall	cu.m	0	2.53	1.38	0	0
/ 02	Back filling with selected material	cu.m	0	0.40	1.30	0	0
/ 03	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	0	29.00	13.10	0	0
/ 04	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	0	74.64	8.30	0	0
/ 05	Driving steel sheet pile, for Item No. 2.3/04	sq.m	0	10.93	3.82	0	0
/ 06	Furnishing RC piles, 250 x 250 mm	lin.m	0	6.93	4.17	0	0
/ 07	Driving RC piles, for Item No. 2.3/06	lin.m	0	7.44	2.40	0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (4/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 08	Concrete, type 4, for footing and wall	cu.m	0	51.95	23.75	0	0
/ 09	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 10	Form, type F1, for Item No. 2.3/08	sq.m	0	1.99	7.08	0	0
/ 11	Form, type F2, for Item No. 2.3/08	sq.m	0	2.54	11.22	0	0
/ 12	Reinforcing bars, for Item No. 2.3/08	kg	0	0.44	0.16	0	0
/ 13	PVC waterstop, W=200 mm	lin.m	0	5.25	2.85	0	0
/ 14	Rubber joint filler, t=10 mm	sq.m	0	7.16	6.30	0	0
/ 15	Bituminous coating	sq.m	0	0.70	0.90	0	0
/ 16	Furnishing and installing trap	kg	0	0.57	0.35	0	0
	Sub-total of Item No. 2.3					0	0
2.4	Heightening of Existing Masonry Revetment						
/ 01	Wet cobble/rubble masonry, type 1	cu.m	88	18.60	14.50	1,637	1,276
	Sub-total Item No. 2.4					1,637	1,276
2.5	Masonry Revetment, Type I						
/ 01	Coffering and care of water including dewatering	L.S.	1	7,480.00	6,090.00	7,480	6,090
/ 02	Excavation	cu.m	8,884	2.53	1.38	22,477	12,260
/ 03	Back filling	cu.m	730	0.40	1.30	292	949
/ 04	Geo-textile, t=1.5 mm	sq.m	106	0.71	1.49	75	158
/ 05	Gravel bedding	cu.m	1,073	8.76	4.40	9,399	4,721
/ 06	Cobble/rubble filling	cu.m	428	8.76	4.40	3,749	1,883
/ 07	Wet cobble/rubble masonry, type 1	cu.m	2,140	18.60	14.50	39,804	31,030
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	3,006	29.00	13.10	87,174	39,379
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	662	2.20	0.80	1,456	530
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	lin.m	3,024	3.90	2.48	11,794	7,500
/ 11	Concrete, type 4, for foundation	cu.m	502	51.95	23.75	26,079	11,923
/ 12	Concrete, type 5, for leveling	cu.m	197	46.67	21.49	9,194	4,234
/ 13	Form, type F2, for Item No. 2.5/11	sq.m	2,527	2.54	11.22	6,419	28,353
/ 14	Reinforcing bars, for Item No. 2.5/11	kg	20,022	0.44	0.16	8,810	3,204

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (5/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 15	Rubber joint filler, t=10 mm	sq.m	362	7.16	6.30	2,592	2,281
	Sub-total Item No. 2.5					236,794	154,495
2.6	Masonry Revetment, type II	L.S.	1	8,730.00	7,110.00	8,730	7,110
/ 01	Coffering and care of water including dewatering	cu.m	9,447	2.53	1.38	23,901	13,037
/ 02	Excavation	cu.m	839	0.40	1.30	336	1,091
/ 03	Back filling	sq.m	140	0.71	1.49	99	209
/ 04	Geo-textile, t=1.5 mm	cu.m	948	8.76	4.40	8,304	4,171
/ 05	Gravel bedding	cu.m	511	8.76	4.40	4,476	2,248
/ 06	Cobble/rubble filling	cu.m	3,758	18.60	14.50	69,899	54,491
/ 07	Wet cobble/rubble masonry, type I	cu.m	3,589	29.00	13.10	104,081	47,016
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	lin.m	877	2.20	0.80	1,929	702
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	3,609	3.90	2.48	14,075	8,950
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	597	51.95	23.75	31,014	14,179
/ 11	Concrete, type 4, for foundation	cu.m	238	46.67	21.49	11,107	5,115
/ 12	Concrete, type 5, for leveling	sq.m	3,046	2.54	11.22	7,737	34,176
/ 13	Form, type F2, for Item No. 2.6/16	kg	23,827	0.44	0.16	10,484	3,812
/ 14	Reinforcing bars, for Item No. 2.6/11	sq.m	632	7.16	6.30	4,525	3,982
	Sub-total Item No. 2.6					300,697	200,289
2.7	Concrete Ditch and Culvert	L.S.	1	1,780.00	1,450.00	1,780	1,450
/ 01	Coffering and care of water including dewatering	cu.m	2,589	2.53	1.38	6,550	3,573
/ 02	Excavation of channel including trench cut	cu.m	328	8.76	4.40	2,873	1,443
/ 03	Rubble bedding	sq.m	27	0.71	1.49	19	40
04	Geo-textile, t=1.5mm	cu.m	1,189	0.40	1.30	476	1,546
/ 05	Back filling	cu.m	8	8.65	4.47	69	36
/ 06	Gravel filter	lin.m	118	2.20	0.80	260	94
/ 07	PVC pipe for weep hole, diam. 50 mm	cu.m	664	29.00	13.10	19,256	8,698
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire						

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (6/12)**

Item No.	Description	Unit	Quantity		Unit Price (US\$)		Amount (US\$)	
			F.C.	L.C.	F.C.	L.C.		
/ 09	Concrete, type 4, for ditch and culvert	cu.m	915	23.75	51.95	47,534	21,731	
/ 10	Concrete, type 5, for leveling	cu.m	142	21.49	46.67	6,627	3,052	
/ 11	Form, type F1, for Item Nos. 2.7/09 and 2.7/10	sq.m	1,640	7.08	1.99	3,264	11,611	
/ 12	Form, type F2, for Item Nos. 2.7/09 and 2.7/10	sq.m	1,225	11.22	2.54	3,112	13,745	
/ 13	Reinforcing bars, for Item Nos. 2.7/09 and 2.7/10	kg	54,893	0.16	0.44	24,153	8,783	
/ 14	PVC waterstop, W=200mm	lin.m	320	2.85	5.25	1,680	912	
/ 15	Joint bar, diam. 25 mm, L=1m	nos.	392	0.19	0.56	220	74	
/ 16	Bitumen coating	sq.m	33	0.90	0.70	23	30	
	Sub-total of Item No. 2.7					117,896	76,818	
	<b>TOTAL OF ITEM NO.2</b>					922,041	587,456	
<b>3</b>	<b>DRAINAGE FACILITIES</b>							
3.1	Sluiceway							
/ 01	Coffering and care of water including dewatering	L.S.	1	2,030.00	2,490.00	2,490	2,030	
/ 02	Excavation including trench cut	cu.m	899	1.38	2.53	2,274	1,241	
/ 03	Back filling with selected materials	cu.m	161	1.30	0.40	64	209	
/ 04	Geo-textile, t=1.5 mm	sq.m	10	1.49	0.71	7	15	
/ 05	Gravel bedding	cu.m	22	4.40	8.76	193	97	
/ 06	Cobble/rubble filling	cu.m	10	4.40	8.76	88	44	
/ 07	Wet cobble/rubble masonry, type 2	cu.m	49	30.40	25.90	1,269	1,490	
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	113	13.10	29.00	3,277	1,480	
/ 09	PVC pipe for weep hole, diam. 50mm	lin.m	12	0.80	2.20	26	10	
/ 10	Bitumen coating	sq.m	0	0.90	0.70	0	0	
/ 11	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	107	8.30	74.64	7,986	888	
/ 12	Driving of steel sheet pile, for Item No. 3.1/11	sq.m	107	3.82	10.93	1,170	409	
/ 13	Furnishing RC Piles, 250 mm x 250 mm	lin.m	590	4.17	6.93	4,089	2,460	
/ 14	Driving of RC piles, for Item No. 3.1/13	sq.m	590	2.40	7.44	4,390	1,416	
/ 15	Concrete, type 3, for blockout concrete	cu.m	10	24.06	52.68	527	241	
/ 16	Concrete, type 4, for sluiceway structures & revetment	cu.m	104	23.75	51.95	5,403	2,470	
/ 17	Concrete, type 5, for leveling	cu.m	15	21.49	46.67	700	322	



**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (7/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 18	Base mortar	cu.m	13	42.30	64.30	550	836
/ 19	Form, type F1, for Item Nos. 3.1/15 and 3.1/16	sq.m	472	1.99	7.08	939	3,342
/ 20	Form, type F2, for Item Nos. 3.1/15 and 3.1/16	sq.m	133	4.53	11.22	602	1,492
/ 21	Reinforcing bars, for Item Nos. 3.1/15 and 3.1/16	kg	12,059	0.44	0.16	5,306	1,929
/ 22	Joint bars, diam. 25mm, L=1m	nos.	0	0.56	0.19	0	0
/ 23	PVC waterstop, W=200mm	lin.m	0	5.25	2.85	0	0
/ 24	Rubber joint filler, t= 10 mm	sq.m	23	7.16	6.30	165	145
/ 25	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.7 m x H = 0.7 m	set	0	2,668.00	297.00	0	0
/ 26	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.8 m x H = 0.8 m	set	4	3,068.00	341.00	12,272	1,364
/ 27	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.9 m x H = 0.9 m	set	1	3,149.00	350.00	3,149	350
/ 28	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.0 m x H = 1.0 m	set	1	3,413.00	380.00	3,413	380
/ 29	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.1 m x H = 1.1 m	set	0	3,705.00	412.00	0	0
/ 30	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.2 m x H = 1.2 m	set	0	3,975.00	442.00	0	0
/ 31	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.3 m x H = 1.3 m	set	0	4,375.00	487.00	0	0
/ 32	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.5 m x H = 1.3 m	set	0	4,580.00	509.00	0	0
/ 33	Steel flap gate including guide frame, accessories and spare parts, W= 0.4 m x H = 0.4 m	set	4	461.00	52.00	1,844	208
/ 34	Timber stoplog, W = 0.4 m x H = 0.4 m	set	1	48.00	48.00	48	48
/ 35	Timber stoplog, W = 0.7 m x H = 0.7 m	set	0	146.00	146.00	0	0
/ 36	Timber stoplog, W = 0.8 m x H = 0.8 m	set	0	191.00	191.00	0	0
/ 37	Timber stoplog, W = 0.9 m x H = 0.9 m	set	1	242.00	242.00	242	242
/ 38	Timber stoplog, W = 1.0 m x H = 1.0 m	set	0	298.00	298.00	0	0
/ 39	Timber stoplog, W = 1.1 m x H = 1.1 m	set	0	361.00	361.00	0	0
/ 40	Timber stoplog, W = 1.2 m x H = 1.2 m	set	0	429.00	429.00	0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (8/12)**

Item No.	Description	Unit	Quantity		Unit Price (US\$)		Amount (US\$)	
			F.C.	L.C.	F.C.	L.C.		
/ 41	Timber stoplog, W = 1.3 m x H = 1.3 m	set	0	504.00	0	504.00	0	0
/ 42	Timber stoplog, W = 1.5m x H = 1.3 m	set	0	581.00	0	581.00	0	0
/ 43	Maintenance tool for gate, stoplog and hoist	set	0	115.00	0	13.00	0	0
	<b>Sub-total of Item No. 3.1</b>						62,483	25,158
3.2	<b>Connection Canal / Cross Drain</b>							
/ 01	Coffering and care of water including dewatering	L.S.	1	710.00		580.00	710	580
/ 02	Trench excavation	cu.m	1,076	3.28		1.89	3,529	2,034
/ 03	Back filling with excavated materials	cu.m	230	0.40		1.30	92	299
/ 04	Geo-textile, t = 1.5 mm	sq.m	142	0.71		1.49	101	212
/ 05	Gravel bedding	cu.m	203	8.76		4.40	1,778	893
/ 06	Concrete, type 4, for slab, strut and facing concrete of wet rubble masonry	cu.m	18	51.95		23.75	935	428
/ 07	Concrete, type 5, for leveling	cu.m	5	46.67		21.49	233	107
/ 08	Form, type F2, for Item No. 3.2/06	sq.m	95	2.54		8.75	241	831
/ 09	Reinforcing bars, for Item No. 3.2/06	kg	963	0.44		0.16	424	154
/ 10	Rubber joint filler, t = 10 mm	sq.m	6	7.16		6.30	43	38
/ 11	Precast concrete culvert, 400x400mm	lin.m	42	25.40		12.20	1,067	512
/ 12	Precast concrete side ditch, U-type, 400x400mm	lin.m	3,578	15.90		8.20	56,890	29,340
/ 13	Precast concrete side ditch, L-type, 300x300mm	lin.m	825	7.50		3.90	6,188	3,218
	<b>Sub-total of Item No. 3.2</b>						72,231	38,646
	<b>TOTAL OF ITEM NO. 3</b>						134,714	63,804
4	<b>BRIDGE AND ROAD</b>							
4.1	<b>Care of River</b>							
/ 01	Coffering and care of water including dewatering	L.S.	1	61,890.00		22,140.00	61,890	22,140
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	198	3.81		3.51	754	695
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	626	3.23		2.47	2,022	1,546
	<b>Sub-total of Item No. 4.1</b>						64,666	24,381

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (9/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
4.2	Foundation and Substructure						
/ 01	Furnishing and driving test PC pile, 350 mm, A type, L= 10 m	nos.	1	299.00	124.00	299	124
/ 02	Furnishing and driving test PC pile, 350 mm, A type, L= 11 m	nos.	1	313.00	130.00	313	130
/ 03	Furnishing and driving test PC pile, 350 mm, A type, L= 12 m	nos.	5	328.00	136.00	1,640	680
/ 04	Furnishing and driving test PC pile, 350 mm, A type, L= 13 m	nos.	7	342.00	142.00	2,394	994
/ 05	Furnishing and driving test PC pile, 350 mm, A type, L= 14 m	nos.	0	358.00	148.00	0	0
/ 06	Furnishing and driving test PC pile, 350 mm, A type, L= 15 m	nos.	1	372.00	155.00	372	155
/ 07	Furnishing and driving test PC pile, 350 mm, A type, L= 18 m	nos.	2	415.00	173.00	830	346
/ 08	Furnishing and driving test PC pile, 350 mm, B type, L= 18 m	nos.	2	485.00	203.00	970	406
/ 09	Furnishing PC pile, 350 mm, A type, L= 10 m	nos.	7	140.00	60.00	980	420
/ 10	Driving PC piles, for Item No. 4.2/09	lin.m	50	8.30	4.38	415	219
/ 11	Furnishing PC pile, 350 mm, A type, L= 11 m	nos.	11	155.00	66.00	1,705	726
/ 12	Driving PC piles, for Item No. 4.2/11	lin.m	90	7.55	3.98	680	358
/ 13	Furnishing PC pile, 350 mm, A type, L= 12 m	nos.	53	169.00	72.00	8,957	3,816
/ 14	Driving PC piles, for Item No. 4.2/13	lin.m	521	10.38	4.87	5,408	2,537
/ 15	Furnishing PC pile, 350 mm, A type, L= 13 m	nos.	45	183.00	78.00	8,235	3,510
/ 16	Driving PC piles, for Item No. 4.2/15	lin.m	488	9.59	4.50	4,680	2,196
/ 17	Furnishing PC pile, 350 mm, A type, L= 14 m	nos.	0	197.00	84.00	0	0
/ 18	Driving PC piles, for Item No. 4.2/17	lin.m	0	8.90	4.17	0	0
/ 19	Furnishing PC pile, 350 mm, A type, L= 15 m	nos.	7	211.00	90.00	1,477	630
/ 20	Driving PC piles, for Item No. 4.2/19	lin.m	85	8.31	3.90	706	332
/ 21	Furnishing PC pile, 350 mm, A type, L= 18 m	nos.	24	254.00	109.00	6,096	2,616
/ 22	Driving PC piles, for Item No. 4.2/21	lin.m	369	6.92	3.25	2,553	1,199
/ 23	Furnishing PC pile, 350 mm, B type, L= 12 m	nos.	44	209.00	90.00	9,196	3,960
/ 24	Driving PC piles, for Item No. 4.2/23	lin.m	374	10.38	4.87	3,882	1,821
/ 25	Furnishing PC pile, 350 mm, B type, L= 13 m	nos.	26	227.00	97.00	5,902	2,522
/ 26	Driving PC piles, for Item No. 4.2/25	lin.m	247	9.59	4.50	2,369	1,112
/ 27	Furnishing PC pile, 350 mm, B type, L= 18 m	nos.	4	315.00	135.00	1,260	540
/ 28	Driving PC piles, for Item No. 4.2/27	lin.m	58	6.92	3.25	401	189
/ 29	Furnishing PC pile, 400 mm, B type, L= 11 m	nos.	0	252.00	108.00	0	0
/ 30	Driving PC piles, for Item No. 4.2/29	lin.m	0	7.55	3.99	0	0
/ 31	Furnishing PC pile, 400 mm, B type, L= 12 m	nos.	0	276.00	118.00	0	0

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (10/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 32	Driving PC piles, for Item No. 4.2/31	lin.m	0	10.39	4.88	0	0
/ 33	Furnishing PC pile, 400 mm, B type, L= 14 m	nos.	0	522.00	138.00	0	0
/ 34	Driving PC piles, for Item No. 4.2/33	lin.m	0	8.90	4.18	0	0
/ 35	Concrete, type 2, for bridge slab, pier and abutment	cu.m	371	53.78	24.54	19,952	9,104
/ 36	Concrete, type 5, for leveling, t = 10 cm.	cu.m	22	46.67	21.49	1,027	473
/ 37	Form, type F1, for Item Nos. 4.2/35 and 4.2/36	sq.m	817	1.99	7.08	1,626	5,784
/ 38	Reinforcing bars, for Item No. 4.2/35	kg	34,941	0.44	0.16	15,374	5,591
	Sub-total of Item No. 4.2					109,699	52,490
<b>4.3</b>	<b>Superstructure</b>						
/ 01	Furnish and erection of PC girder, H=400mm, L=7.3m, BM-70	pc.	64	459.00	210.00	29,376	13,440
/ 02	Furnish and erection of PC girder, H=450mm, L=8.4m, BM-70	pc.	120	591.00	267.00	70,920	32,040
/ 03	Furnish and erection of PC girder, H=450mm, L=10.5m, BM-70	pc.	0	747.00	335.00	0	0
/ 04	Furnish and erection of PC girder, H=450mm, L=11.9m, BM-70	pc.	72	842.00	376.00	60,624	27,072
/ 05	Furnish and erection of PC girder, H=500mm, L=13.35m, BM-70	pc.	0	1,071.00	466.00	0	0
/ 06	Furnish and erection of PC girder, H=500mm, L=14.15m, BM-70	pc.	0	1,131.00	492.00	0	0
/ 07	Furnish and erection of PC girder, H=550mm, L=14.9m, BM-70	pc.	0	1,305.00	568.00	0	0
/ 08	Furnish and erection of PC girder, H=500mm, L=12.9m, BM-100	pc.	0	1,037.00	452.00	0	0
/ 09	Furnish and erection of PC girder, H=350mm, L=7.3m, Pedestrian	pc.	12	404.00	186.00	4,848	2,232
/ 10	Furnish and erection of PC girder, H=350mm, L=8.4m, Pedestrian	pc.	6	462.00	211.00	2,772	1,266
/ 11	Furnish and erection of PC girder, H=450mm, L=13.1m, Pedestrian	pc.	0	948.00	413.00	0	0
/ 12	PC tendon and ancillary materials	lin.m	2,708	4.26	1.00	11,536	2,708
/ 13	Concrete, type 2, for lateral girder, side wall and in-situ slab	cu.m	317	53.78	24.54	17,048	7,779
/ 14	Concrete, type 4, for side walk	cu.m	32	51.95	23.75	1,662	760
/ 15	Form, type F1, for Item Nos. 4.3/13 and 4.3/14	sq.m	1,722	3.86	8.86	6,647	15,257
/ 16	Reinforcing bars, for Item Nos. 4.3/13 and 4.3/14	kg	9,606	0.44	0.16	4,227	1,537
/ 17	Curb stone	lin.m	144	10.60	5.10	1,526	734
/ 18	Rubber bearing pad, t=33mm, W=150mm	lin.m	409.0	217.00	25.70	88,753	10,511
/ 19	Non-shrink mortar with grid bars, for shoe base	lit.	5,240.0	1.84	1.27	9,642	6,655
/ 20	Anchoring in fixed bearing shoe	nos.	234	12.02	6.48	2,813	1,516
/ 21	Anchoring in movable bearing shoe	nos.	234	10.60	6.31	2,480	1,477

**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (11/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 22	Guard pipe for Road bridge, H=0.4m	lin.m	591.2	41.40	11.30	24,476	6,681
/ 23	Guard pipe for pedestrian bridge, H=1.0m	lin.m	92.0	174.00	27.00	16,008	2,484
/ 24	Drain pipe (D=100mm, L=84cm) with cap (300x150mm)	nos.	24	4.72	2.14	113	51
/ 25	Drain pipe, D=75mm, L=70cm	nos.	112	4.15	2.08	465	233
/ 26	Drain pipe, D=75mm, L=40cm	nos.	12	2.37	1.62	28	19
/ 27	Expansion joint, for road bridge	lin.m	296.5	306.00	42.00	90,729	12,453
/ 28	Expansion joint, for pedestrian and in-situ slab bridges	lin.m	22.5	342.00	46.00	7,695	1,035
/ 29	Asphalt pavement	cu.m	127	71.10	48.60	9,030	6,172
	Sub-total of Item No. 4.3					463,418	154,112
4.4	Approach Road						
/ 01	Removal of existing asphalt/base pavement	sq.m	11,437	3.23	2.47	36,942	28,249
/ 02	Excavation	cu.m	2,583	2.53	1.38	6,535	3,565
/ 03	Back filling	cu.m	1,858	0.40	1.30	743	2,415
/ 04	Wet rubble/cobble masonry for slope protection	cu.m	0	18.60	14.50	0	0
/ 05	Concrete, type 3, for approach step	cu.m	31	52.68	24.06	1,633	746
/ 06	Concrete, type 4, for side wall	cu.m	2,321	51.95	23.75	120,576	55,124
/ 07	Concrete, type 5, for foundation concrete	cu.m	871	46.67	21.49	40,650	18,718
/ 08	Form, type F1, for Item Nos. 4.4/05 and 4.4/06	sq.m	12,139	1.99	7.08	24,157	85,944
/ 09	Form, type F2, for Item Nos. 4.4/05 to 4.4/07	sq.m	2,252	2.54	8.75	5,720	19,705
/ 10	Reinforcing bars, for Item Nos. 4.4/05 and 4.4/06	kg	2,840	0.44	0.16	1,250	454
/ 11	Precast concrete drain block, type 5a	nos.	2,270	6.40	3.40	14,528	7,718
/ 12	Precast concrete side ditch, 300 x 300 mm	lin.m	5,872	12.20	6.40	71,638	37,581
/ 13	Embankment and sub-grade	cu.m	4,035	3.53	2.34	14,244	9,442
/ 14	Sub-base course	cu.m	1,987	6.30	2.80	12,518	5,564
/ 15	Base course	cu.m	1,492	9.60	4.00	14,323	5,968
/ 16	Asphalt pavement	cu.m	502	71.10	48.60	35,692	24,397
/ 17	Guardrail, concrete post	lin.m	98	3.09	2.07	303	203
	Sub-total of Item No. 4.4					401,452	305,793
	<b>TOTAL OF ITEM NO. 4</b>					<b>1,039,235</b>	<b>536,776</b>
	<b>SUMMARY OF AMOUNT</b>						

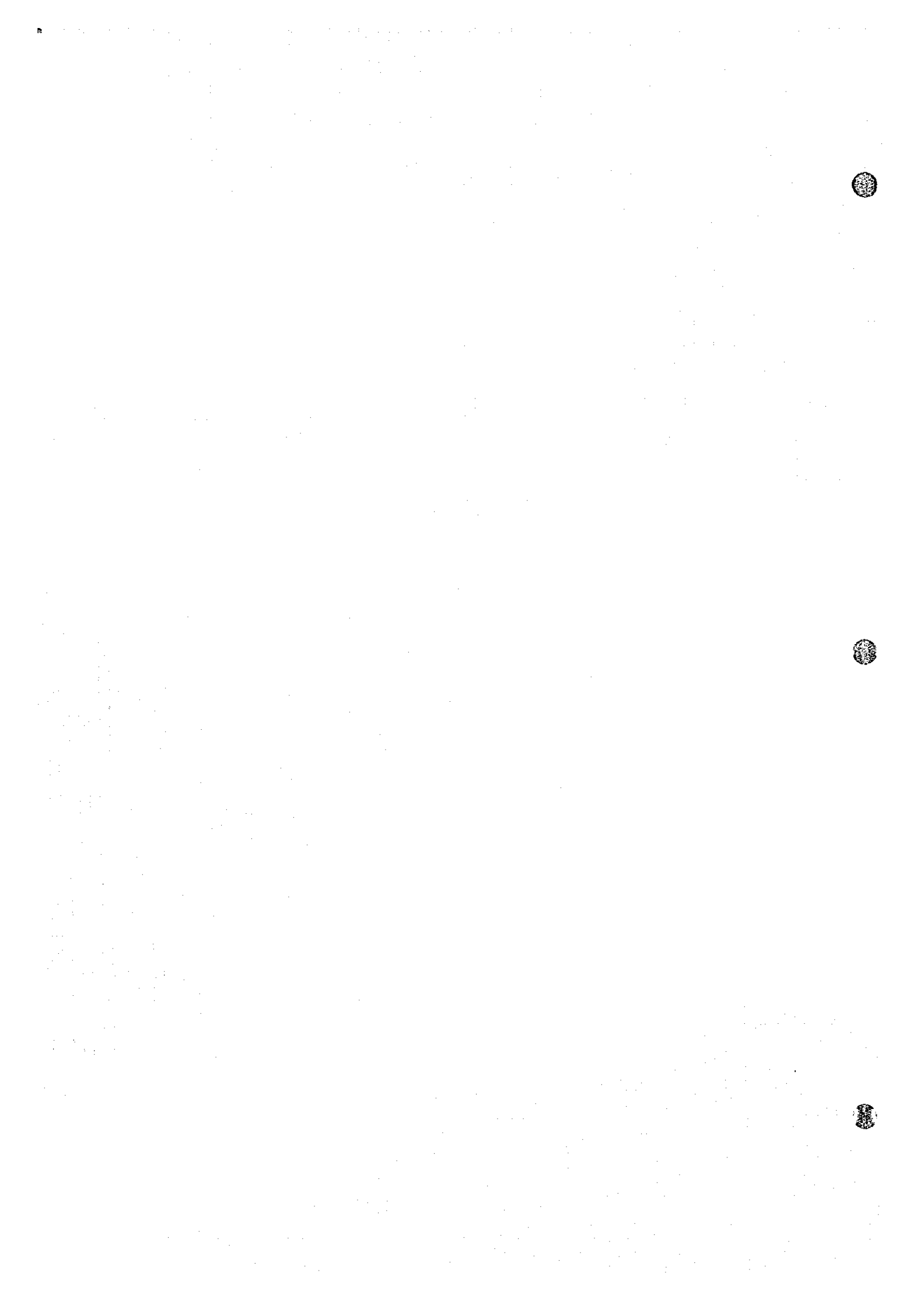
**BILL OF QUANTITIES FOR PACKAGE 1, STAGE III (12/12)**

Item No.	Description	Unit	Quantity		Unit Price (US\$)		Amount (US\$)	
			F.C.	L.C.	F.C.	L.C.	F.C.	L.C.
No. 0	GENERAL ITEM						220,869	202,312
No. 1	RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES						0	211,110
No. 2	DRAINAGE CHANNEL						922,041	587,456
No. 3	DRAINAGE FACILITIES						134,714	63,804
No. 4	BRIDGE AND ROAD						1,039,235	536,776
	TOTAL OF CONSTRUCTION COST EQUIVALENT TO (US\$)						2,316,859	1,601,458
							3,918,317	

**APPENDIX 8-2**

***Priced Bill of Quantities for***

***Package-2***





**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (1/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
0	<b>GENERAL ITEM</b>						
/ 01	Construction, maintenance and subsequent removal of temporary access roads including temporary bridges to various working areas	L.S.	0.941	3,600.00	2,300.00	3,388	2,164
/ 02	Maintenance of existing public roads utilized for construction purpose, including temporary supports to strengthen existing roads, waterways, piers and abutments of bridges, and traffic control	L.S.	0.941	5,100.00	3,100.00	4,799	2,917
/ 03	Construction, operation, maintenance and subsequent removal of the Engineer's office	L.S.	0.941	0.00	35,100.00	0	33,029
/ 04	Furnishing of office furniture required for the temporary Engineer's office	P.S.	0.941	2,000.00	2,300.00	1,882	2,164
/ 05	Construction, operation, maintenance and subsequent removal of the Contractor's temporary buildings and facilities, including offices, staff quarter, labor camps, motor pool, repair shop, warehouses, work shops, guard house, fence, and rental fee of land	L.S.	0.941	48,200.00	146,700.00	45,356	138,045
/ 06	Construction, operation, maintenance and subsequent removal of the Contractor's laboratory, including provision of necessary testing instruments and apparatus	L.S.	0.941	7,800.00	3,900.00	7,340	3,670
/ 07	Provision of first aid kit boxes in all sites and an ambulance with driver	L.S.	0.941	16,200.00	11,300.00	15,244	10,633
/ 08	Installation, operation, maintenance and subsequent removal of temporary water supply system including drainage and sewage systems	L.S.	0.941	6,520.00	7,200.00	6,135	6,775
/ 09	Installation, operation, maintenance and subsequent removal of temporary electric supply system	L.S.	0.941	33,530.00	5,910.00	31,552	5,561
/ 10	Installation, operation, maintenance and subsequent removal of temporary telecommunication system connecting with office, work shops and construction sites	L.S.	0.941	20,790.00	10,540.00	19,563	9,918
/ 11	Boreholes and exploratory excavation	P.S.	0.941	510.00	290.00	480	273

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (2/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	All risk insurance of works for permanent and temporary facilities, and insurance for third parties	L.S.	0.941	5,500.00	3,200.00	5,176	3,011
/ 13	Provision of safety equipment and instruments for laborers, and installation, maintenance and subsequent removal of safety instruments and sign boards	L.S.	0.941	5,000.00	2,500.00	4,704	2,352
/ 14	Furnishing of survey equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.941	3,670.00	980.00	3,453	922
/ 15	Furnishing, operation and maintenance of transportation equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.941	53,760.00	15,840.00	50,588	14,905
/ 16	Topographic survey	P.S.	0.941	19,700.00	21,100.00	18,538	19,855
/ 17	Site clearance in acquired areas with houses and other buildings	sq.m	99,926	0.88	0.49	87,935	48,964
<b>TOTAL OF ITEM NO.0</b>						<b>306,133</b>	<b>305,158</b>
<b>1 RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES</b>							
/ 01	Public utilities subject to relocation/reconstruction for electricity facilities	P.S.	1	0.00	116,100.00	0	116,100
/ 02	Public utilities subject to relocation/reconstruction for communication facilities	P.S.	1	0.00	420.00	0	420
/ 03	Public utilities subject to relocation/reconstruction for other facilities	P.S.	1	0.00	1,500.00	0	1,500
<b>TOTAL OF ITEM NO.1</b>						<b>0</b>	<b>118,020</b>

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (3/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
<b>2</b>	<b>DRAINAGE CHANNEL</b>						
2.1	Drainage Channel						
/ 01	Excavation	cu.m	41,894	2.53	1.38	105,992	57,814
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	2,435	3.81	3.51	9,277	8,547
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	160	3.23	2.47	517	395
	Sub-total of Item No. 2.1					115,786	66,756
2.2	Levee and Inspection/Relocation Road						
/ 01	Coffering and care of water including dewatering	L.S.	1	710.00	580.00	710	580
/ 02	Stripping, grubbing and clearing	sq.m	4,634	0.86	0.47	3,985	2,178
/ 03	Excavation	cu.m	3,042	2.53	1.38	7,696	4,198
/ 04	Embankment	cu.m	2,956	3.53	2.34	10,435	6,917
/ 05	Dump filling	cu.m	46,580	3.53	2.34	164,427	108,997
/ 06	Filling-up by random material	cu.m	180	0.30	1.10	54	198
/ 07	Geo-textile, t=1.5mm	sq.m	4,495	0.71	1.49	3,191	6,698
/ 08	Sod facing	sq.m	1,070	0.02	1.43	21	1,530
/ 09	Cobble/rubble for rip-rap	sq.m	11,585	8.76	4.40	101,485	50,974
/ 10	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	3,402	29.00	13.10	98,658	44,566
/ 11	Bamboo mat	sq.m	4,866	0.83	7.76	4,039	37,760
/ 12	Bamboo waling	lin.m	46,335	0.04	1.01	1,853	46,798
/ 13	Bamboo pile, diam. 80-100mm	lin.m	64,772	1.91	0.84	123,715	54,408
/ 14	Sub-base course	cu.m	400	6.30	2.80	2,520	1,120
/ 15	Base course	cu.m	300	9.60	4.00	2,880	1,200
/ 16	Asphalt pavement	sq.m	2,000	3.60	2.40	7,200	4,800
	Sub-total of Item No. 2.2					532,869	372,922
2.3	Concrete Wall						
/ 01	Coffering and care of water including dewatering	L.S.	1	5,340.00	4,350.00	5,340	4,350
/ 02	Excavation for footing of L-type concrete wall	cu.m	4,124	2.53	1.38	10,434	5,691
/ 03	Back filling with selected material	cu.m	1,453	0.40	1.30	581	1,889
/ 04	Geo-textile, t=1.5 mm	sq.m	48	0.71	1.49	34	72

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (4/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 05	Gravel filter	cu.m	14	8.65	4.47	121	63
/ 06	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	1,702	29.00	13.10	49,358	22,296
/ 07	PVC pipe for weep hole, diam. 50 mm	lin.m	208	2.20	0.80	458	166
/ 08	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	3,404	74.64	8.30	254,075	28,253
/ 09	Driving steel sheet pile, for Item No. 2.3/08	sq.m	3,404	10.93	3.82	37,206	13,003
/ 10	Furnishing RC piles, 250 x 250 mm	lin.m	10,920	6.93	4.17	75,676	45,536
/ 11	Driving RC piles, for Item No. 2.3/10	lin.m	10,920	7.44	2.40	81,245	26,208
/ 12	Concrete, type 4, for footing and wall	cu.m	2,016	51.95	23.75	104,731	47,880
/ 13	Concrete, type 5, for leveling	cu.m	286	46.67	21.49	13,348	6,146
/ 14	Form, type F1, for Item No. 2.3/12	sq.m	3,414	1.99	7.08	6,794	24,171
/ 15	Form, type F2, for Item No. 2.3/12	sq.m	2,104	2.54	11.22	5,344	23,607
/ 16	Reinforcing bars, for Item No. 2.3/12	kg	161,208	0.44	0.16	70,932	25,793
/ 17	PVC waterstop, W=200 mm	lin.m	1,034	5.25	2.85	5,429	2,947
/ 18	Rubber joint filler, t=10 mm	sq.m	4	7.16	6.30	29	25
/ 19	Bituminous coating	sq.m	404	0.70	0.90	283	364
	Sub-total of Item No. 2.3					721,418	278,460
2.4	Masonry Revetment, type II	L.S.	1	1,420.00	1,160.00	1,420	1,160
/ 01	Coffering and care of water including dewatering	cu.m	1,056	2.53	1.38	2,672	1,457
/ 02	Excavation	cu.m	125	0.40	1.30	49	160
/ 03	Back filling	sq.m	21	0.71	1.49	15	31
/ 04	Geo-textile, t=1.5 mm	cu.m	140	8.76	4.40	1,226	616
/ 05	Gravel bedding	cu.m	75	8.76	4.40	657	330
/ 06	Cobble/rubble filling	cu.m	550	18.60	14.50	10,230	7,975
/ 07	Wet cobble/rubble masonry, type 1	cu.m	521	29.00	13.10	15,109	6,825
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	lin.m	130	2.20	0.80	286	104
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	528	3.90	2.48	2,059	1,309
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	85	51.95	23.75	4,416	2,019
/ 11	Concrete, type 4, for foundation	cu.m	36	46.67	21.49	1,680	774
/ 12	Concrete, type 5, for leveling	sq.m	443	2.54	11.22	1,125	4,970
/ 13	Form, type F2, for Item No. 2.4/11	kg	3,457	0.44	0.16	1,521	553
/ 14	Reinforcing bars, for Item No. 2.4/11						

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (5/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 15	Rubber joint filler, t=10 mm	sq.m	93	7.16	6.30	666	586
	Sub-total Item No. 2.4					43,131	28,869
2.5	Concrete Ditch and Culvert						
/ 01	Excavation of channel including trench cut	cu.m	0	2.53	1.38	0	0
/ 02	Rubble bedding	cu.m	0	8.76	4.40	0	0
/ 03	Geo-textile, t=1.5mm	sq.m	0	0.71	1.49	0	0
/ 04	Back filling	cu.m	0	0.40	1.30	0	0
/ 05	Gravel filter	cu.m	0	8.65	4.47	0	0
/ 06	PVC pipe for weep hole, diam. 50 mm	lin.m	0	2.20	0.80	0	0
/ 07	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	0	29.00	13.10	0	0
/ 08	Concrete, type 4, for ditch and culvert	cu.m	0	51.95	23.75	0	0
/ 09	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 10	Form, type F1, for Item Nos. 2.5/08 and 2.5/09	sq.m	0	1.99	7.08	0	0
/ 11	Form, type F2, for Item Nos. 2.5/08 and 2.5/09	sq.m	0	2.54	11.22	0	0
/ 12	Reinforcing bars, for Item Nos. 2.5/08	kg	0	0.44	0.16	0	0
/ 13	PVC waterstop, W=200mm	lin.m	0	5.25	2.85	0	0
/ 14	Joint bar, diam. 25 mm, L=1m	nos.	0	0.56	0.19	0	0
/ 15	Bitumen coating	sq.m	0	0.70	0.90	0	0
	Sub-total of Item No. 2.5					0	0
	TOTAL OF ITEM NO.2					1,413,204	747,007
3	DRAINAGE FACILITIES						
3.1	Sluiceway						
/ 01	Coffering and care of water including dewatering	L.S.	1	1,250.00	1,020.00	1,250	1,020
/ 02	Excavation including trench cut	cu.m	538	2.53	1.38	1,361	742
/ 03	Back filling with selected materials	cu.m	67	0.40	1.30	27	87
/ 04	Geo-textile, t=1.5 mm	sq.m	5	0.71	1.49	4	7

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (6/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 05	Gravel bedding	cu.m	20	8.76	4.40	175	88
/ 06	Wet cobble/rubble masonry, type 2	cu.m	47	25.90	30.40	1,217	1,429
/ 07	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	71	29.00	13.10	2,059	930
/ 08	PVC pipe for weep hole, diam. 50mm	lin.m	7	2.20	0.80	15	6
/ 09	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	20	74.64	8.30	1,493	166
/ 10	Driving of steel sheet pile, for Item No. 3.1/09	sq.m	20	10.93	3.82	219	76
/ 11	Furnishing RC Piles, 250 mm x 250 mm	lin.m	512	6.93	4.17	3,548	2,135
/ 12	Driving of RC piles, for Item No. 3.1/11	sq.m	512	7.44	2.40	3,809	1,229
/ 13	Concrete, type 3, for blockout concrete	cu.m	8	52.68	24.06	421	192
/ 14	Concrete, type 4, for sluiceway structures & revetment	cu.m	62	51.95	23.75	3,221	1,473
/ 15	Concrete, type 5, for leveling	cu.m	11	46.67	21.49	513	236
/ 16	Base mortar	cu.m	12	42.30	64.30	508	772
/ 17	Form, type F1, for Item Nos. 3.1/13 and 3.1/14	sq.m	214	1.99	7.08	426	1,515
/ 18	Form, type F2, for Item Nos. 3.1/13 and 3.1/14	sq.m	113	4.53	11.22	512	1,268
/ 19	Reinforcing bars, for Item Nos. 3.1/13 and 3.1/14	kg	6,934	0.44	0.16	3,051	1,109
/ 20	Rubber joint filler, t= 10 mm	sq.m	4	7.16	6.30	29	25
/ 21	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.8 m x H = 0.8 m	set	4	3,068.00	341.00	12,272	1,364
/ 22	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.0 m x H = 1.0 m	set	3	3,413.00	380.00	10,239	1,140
/ 23	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.1 m x H = 1.1 m	set	0	3,705.00	412.00	0	0
/ 24	Steel flap gate including guide frame, accessories and spare parts, W= 0.4 m x H = 0.4 m	set	1	461.00	52.00	461	52
Sub-total of Item No. 3.1						46,830	17,061
3.2	Connection Canal / Cross Drain	L.S.	1	450.00	360.00	450	360
/ 01	Coffering and care of water including dewatering	cu.m	253	3.28	1.89	830	478
/ 02	Trench excavation	cu.m	51	0.40	1.30	20	66
/ 03	Back filling with excavated materials	cu.m	43	8.76	4.40	377	189
/ 04	Gravel bedding	lin.m	0	25.40	12.20	0	0
/ 05	Precast concrete culvert, 400x400mm						

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (7/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 06	Precast concrete side ditch, U-type, 400x400mm	lin.m	1,017	15.90	8.20	16,170	8,339
/ 07	Precast concrete side ditch, L-type, 300x300mm	lin.m	0	7.50	3.90	0	0
	Sub-total of Item No. 3.2					17,847	9,432
	<b>TOTAL OF ITEM NO. 3</b>					<b>64,677</b>	<b>26,493</b>
<b>4</b>	<b>BRIDGE AND ROAD</b>						
4.1	Care of River						
/ 01	Coffering and care of water including dewatering	L.S.	1	64,600.00	21,500.00	64,600	21,500
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	77	3.81	3.51	293	270
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	248	3.23	2.47	801	613
	Sub-total of Item No. 4.1					65,694	22,383
4.2	Foundation and Substructure						
/ 01	Furnishing and driving test PC pile, 350 mm, A type, L= 11 m	nos.	1	313.00	130.00	313	130
/ 02	Furnishing and driving test PC pile, 350 mm, A type, L= 12 m	nos.	1	328.00	136.00	328	136
/ 03	Furnishing and driving test PC pile, 350 mm, A type, L= 13 m	nos.	1	342.00	142.00	342	142
/ 04	Furnishing and driving test PC pile, 350 mm, A type, L= 17 m	nos.	1	401.00	167.00	401	167
/ 05	Furnishing PC pile, 350 mm, A type, L= 11 m	nos.	9	155.00	66.00	1,395	594
/ 06	Driving PC piles, for Item No. 4.2/05	lin.m	86	7.55	3.98	649	342
/ 07	Furnishing PC pile, 350 mm, A type, L= 12 m	nos.	9	169.00	72.00	1,521	648
/ 08	Driving PC piles, for Item No. 4.2/07	lin.m	90	10.38	4.87	934	438
/ 09	Furnishing PC pile, 350 mm, A type, L= 13 m	nos.	15	183.00	78.00	2,745	1,170
/ 10	Driving PC piles, for Item No. 4.2/09	lin.m	176	9.59	4.50	1,688	792
/ 11	Furnishing PC pile, 350 mm, A type, L= 17 m	nos.	11	240.00	103.00	2,640	1,133
/ 12	Driving PC piles, for Item No. 4.2/11	lin.m	165	7.33	3.44	1,209	568
/ 13	Furnishing PC pile, 350 mm, B type, L= 11 m	nos.	8	192.00	82.00	1,536	656
/ 14	Driving PC piles, for Item No. 4.2/13	lin.m	60	7.55	3.98	453	239
/ 15	Furnishing PC pile, 350 mm, B type, L= 12 m	nos.	8	209.00	90.00	1,672	720
/ 16	Driving PC piles, for Item No. 4.2/15	lin.m	68	10.38	4.87	706	331
/ 17	Furnishing PC pile, 350 mm, B type, L= 13 m	nos.	8	227.00	97.00	1,816	776
/ 18	Driving PC piles, for Item No. 4.2/17	lin.m	76	9.59	4.50	729	342
/ 19	Furnishing PC pile, 350 mm, B type, L= 17 m	nos.	12	297.00	127.00	3,564	1,524

**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (8/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 20	Driving PC piles, for Item No. 4.2/19	lin.m	162	7.33	3.44	1,187	557
/ 21	Concrete, type 2, for bridge slab, pier and abutment	cu.m	156	53.78	24.54	8,390	3,828
/ 22	Concrete, type 5, for leveling, t = 10 cm.	cu.m	9	46.67	21.49	420	193
/ 23	Form, type F1, for Item Nos. 4.2/21 and 4.2/22	sq.m	319	1.99	7.08	635	2,259
/ 24	Reinforcing bars, for Item No. 4.2/21	kg	14,574	0.44	0.16	6,413	2,332
	Sub-total of Item No. 4.2					41,686	20,017
4.3	Superstructure						
/ 03	Furnish and erection of PC girder, H=450mm, L=9.6m, BM-70	pc.	64	673.00	304.00	43,072	19,456
/ 11	Furnish and erection of PC girder, H=550mm, L=14.1m, BM-70	pc.	24	1,233.00	536.00	29,592	12,864
/ 17	Furnish and erection of PC girder, H=500mm, L=12.9m, BM-100	pc.	28	1,037.00	452.00	29,036	12,656
/ 30	Concrete, type 2, for lateral girder, side wall and in-situ slab	cu.m	1,561	53.78	24.54	83,951	38,307
/ 31	Concrete, type 4, for side walk	cu.m	139	51.95	23.75	7,221	3,301
/ 32	Form, type F1, for Item Nos. 4.3/30 and 4.3/31	sq.m	0	3.86	8.86	0	0
/ 33	Reinforcing bars, for Item Nos. 4.3/30 and 4.3/31	kg	596	0.44	0.16	262	95
/ 34	Curb stone	lin.m	3,618	10.60	5.10	38,351	18,452
/ 36	Non-shrink mortar with grid bars, for shoe base	lit.	172.3	1.84	1.27	317	219
/ 37	Anchoring in fixed bearing shoe	nos.	1,940	12.02	6.48	23,319	12,571
/ 38	Anchoring in movable bearing shoe	nos.	107	10.60	6.31	1,134	675
/ 39	Bearing shoe, fix	nos.	107	2,018.00	231.00	215,926	24,717
/ 41	Guard pipe for Road bridge, H=0.4m	lin.m	0.0	41.40	11.30	0	0
/ 42	Guard pipe for pedestrian bridge, H=1.0m	lin.m	205.4	174.00	27.00	35,740	5,546
/ 45	Drain pipe, D=75mm, L=40cm	nos.	36	2.37	1.62	85	58
/ 47	Expansion joint, for pedestrian and in-situ slab bridges	lin.m	134.7	342.00	46.00	46,067	6,196
/ 48	Asphalt pavement	cu.m	82	71.10	48.60	5,830	3,985
	Sub-total of Item No. 4.3					559,903	159,098
4.4	Approach Cushion Slab						
/ 01	Concrete, type 4, for slab	cu.m	19	51.95	23.75	987	451
/ 02	Form, type F1, for Item No. 4.4/01	sq.m	64	1.99	7.08	127	453
/ 03	Reinforcing bars, for Item No. 4.4/01	kg	2,165	0.44	0.16	953	346



**BILL OF QUANTITIES FOR PACKAGE 2, TANJUNGAN (9/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
	Sub-total of Item No. 4.4					2,067	1,250
4.5	Approach Road						
/ 01	Removal of existing concrete pavement	sq.m	4,661	3.81	3.51	17,758	16,360
/ 02	Removal of existing asphalt/base pavement	sq.m	1,075	3.23	2.47	3,472	2,655
/ 03	Excavation	cu.m	425	2.53	1.38	1,075	587
/ 04	Back filling	cu.m	288	0.40	1.30	115	374
/ 05	Wet rubble/cobble masonry for slope protection	cu.m	478	18.60	14.50	8,891	6,931
/ 06	Concrete, type 4, for side wall	cu.m	465	51.95	23.75	24,157	11,044
/ 07	Concrete, type 5, for foundation concrete	cu.m	147	46.67	21.49	6,860	3,159
/ 08	Form, type F1, for Item No. 4.5/06	sq.m	1,894	1.99	7.08	3,769	13,410
/ 09	Form, type F2, for Item Nos. 4.5/06 to 4.5/07	sq.m	277	2.54	8.75	704	2,424
/ 10	Precast concrete drain block, type 5a	nos.	1,440	6.40	3.40	9,216	4,896
/ 11	Precast concrete side ditch, 300 x 300 mm	lin.m	864	12.20	6.40	10,541	5,530
/ 12	Embankment and sub-grade	cu.m	2,732	3.53	2.34	9,644	6,393
/ 13	Sub-base course	cu.m	925	6.30	2.80	5,828	2,590
/ 14	Base course	cu.m	695	9.60	4.00	6,672	2,780
/ 15	Asphalt pavement	cu.m	234	71.10	48.60	16,637	11,372
	Sub-total of Item No. 4.5					125,339	90,505
	<b>TOTAL OF ITEM NO. 4</b>					<b>794,689</b>	<b>293,253</b>
	<b>SUMMARY OF AMOUNT</b>						
No. 0	GENERAL ITEM					306,133	305,158
No. 1	RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES					0	118,020
No. 2	DRAINAGE CHANNEL					1,413,204	747,007
No. 3	DRAINAGE FACILITIES					64,677	26,495
No. 4	BRIDGE AND ROAD					794,689	293,253
	<b>TOTAL OF CONSTRUCTION COST EQUIVALENT TO (US\$)</b>					<b>2,578,703</b>	<b>1,489,931</b>
						<b>4,068,634</b>	

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (1/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
0	<b>GENERAL ITEM</b>						
/ 01	Construction, maintenance and subsequent removal of temporary access roads including temporary bridges to various working areas	L.S.	0.059	3,600.00	2,300.00	212	136
/ 02	Maintenance of existing public roads utilized for construction purpose, including temporary supports to strengthen existing roads, waterways, piers and abutments of bridges, and traffic control	L.S.	0.059	5,100.00	3,100.00	301	183
/ 03	Construction, operation, maintenance and subsequent removal of the Engineer's office	L.S.	0.059	0.00	35,100.00	0	2,071
/ 04	Furnishing of office furniture required for the temporary Engineer's office	P.S.	0.059	2,000.00	2,300.00	118	136
/ 05	Construction, operation, maintenance and subsequent removal of the Contractor's temporary buildings and facilities, including offices, staff quarter, labor camps, motor pool, repair shop, warehouses, work shops, guard house, fence, and rental fee of land	L.S.	0.059	48,200.00	146,700.00	2,844	8,655
/ 06	Construction, operation, maintenance and subsequent removal of the Contractor's laboratory, including provision of necessary testing instruments and apparatus	L.S.	0.059	7,800.00	3,900.00	460	230
/ 07	Provision of first aid kit boxes in all sites and an ambulance with driver	L.S.	0.059	16,200.00	11,300.00	956	667
/ 08	Installation, operation, maintenance and subsequent removal of temporary water supply system including drainage and sewage systems	L.S.	0.059	6,520.00	7,200.00	385	425
/ 09	Installation, operation, maintenance and subsequent removal of temporary electric supply system	L.S.	0.059	33,530.00	5,910.00	1,978	349
/ 10	Installation, operation, maintenance and subsequent removal of temporary telecommunication system connecting with office, work shops and construction sites	L.S.	0.059	20,790.00	10,540.00	1,227	622
/ 11	Boreholes and exploratory excavation	P.S.	0.059	510.00	290.00	30	17

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (2/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	All risk insurance of works for permanent and temporary facilities, and insurance for third parties	L.S.	0.059	5,500.00	3,200.00	325	189
/ 13	Provision of safety equipment and instruments for laborers, and installation, maintenance and subsequent removal of safety instruments and sign boards	L.S.	0.059	5,000.00	2,500.00	295	148
/ 14	Furnishing of survey equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.059	3,670.00	980.00	217	58
/ 15	Furnishing, operation and maintenance of transportation equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.059	53,760.00	15,840.00	3,172	955
/ 16	Topographic survey	P.S.	0.059	19,700.00	21,100.00	1,162	1,245
/ 17	Site clearance in acquired areas with houses and other buildings	sq.m	0	0.88	0.49	0	0
<b>TOTAL OF ITEM NO.0</b>						13,682	16,066
<b>I RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES</b>							
/ 01	Public utilities subject to relocation/reconstruction for electricity facilities	P.S.	1	0.00	0.00	0	0
/ 02	Public utilities subject to relocation/reconstruction for communication facilities	P.S.	1	0.00	0.00	0	0
/ 03	Public utilities subject to relocation/reconstruction for other facilities	P.S.	1	0.00	0.00	0	0
<b>TOTAL OF ITEM NO.1</b>						0	0

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (3/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
2	<b>DRAINAGE CHANNEL</b>						
2.1	Drainage Channel	cu.m	0				
/ 01	Excavation	cu.m	2	2.53	1.38	0	0
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	0	3.81	3.51	8	7
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	0	3.23	2.47	0	0
	Sub-total of Item No. 2.1					8	7
2.2	<b>Levee and Inspection/Relocation Road</b>						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Stripping, grubbing and clearing	sq.m	0	0.86	0.47	0	0
/ 03	Excavation	cu.m	0	2.53	1.38	0	0
/ 04	Embankment	cu.m	0	3.53	2.34	0	0
/ 05	Dump filling	cu.m	0	3.53	2.34	0	0
/ 06	Filling-up by random material	cu.m	0	0.30	1.10	0	0
/ 07	Geo-textile, t=1.5mm	sq.m	0	0.71	1.49	0	0
/ 08	Sod facing	sq.m	0	0.02	1.43	0	0
/ 09	Cobble/rubble for rip-rap	sq.m	0	8.76	4.40	0	0
/ 10	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	0	29.00	13.10	0	0
/ 11	Bamboo mat	sq.m	0	0.83	7.76	0	0
/ 12	Bamboo waling	lin.m	0	0.04	1.01	0	0
/ 13	Bamboo pile, diam. 80-100mm	lin.m	0	1.91	0.84	0	0
/ 14	Sub-base course	cu.m	0	6.30	2.80	0	0
/ 15	Base course	cu.m	0	9.60	4.00	0	0
/ 16	Asphalt pavement	sq.m	0	3.60	2.40	0	0
	Sub-total of Item No. 2.2					0	0
2.3	<b>Concrete Wall</b>						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Excavation for footing of L-type concrete wall	cu.m	0	2.53	1.38	0	0
/ 03	Back filling with selected material	cu.m	0	0.40	1.30	0	0
/ 04	Geo-textile, t=1.5 mm	sq.m	0	0.71	1.49	0	0

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (4/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 05	Gravel filter	cu.m	0	8.65	4.47	0	0
/ 06	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	0	29.00	13.10	0	0
/ 07	PVC pipe for weep hole, diam. 50 mm	lin.m	0	2.20	0.80	0	0
/ 08	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	0	74.64	8.30	0	0
/ 09	Driving steel sheet pile, for Item No. 2.3/08	sq.m	0	10.93	3.82	0	0
/ 10	Furnishing RC piles, 250 x 250 mm	lin.m	0	6.93	4.17	0	0
/ 11	Driving RC piles, for Item No. 2.3/10	lin.m	0	7.44	2.40	0	0
/ 12	Concrete, type 4, for footing and wall	cu.m	0	51.95	23.75	0	0
/ 13	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 14	Form, type F1, for Item No. 2.3/12	sq.m	0	1.99	7.08	0	0
/ 15	Form, type F2, for Item No. 2.3/12	sq.m	0	2.54	11.22	0	0
/ 16	Reinforcing bars, for Item No. 2.3/12	kg	0	0.44	0.16	0	0
/ 17	PVC waterstop, W=200 mm	lin.m	0	5.25	2.85	0	0
/ 18	Rubber joint filler, t= 10 mm	sq.m	0	7.16	6.30	0	0
/ 19	Bituminous coating	sq.m	0	0.70	0.90	0	0
	Sub-total of Item No. 2.3					0	0
2.4	Masonry Revetment, type II	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	0	2.53	1.38	0	0
/ 02	Excavation	cu.m	0	0.40	1.30	0	0
/ 03	Back filling	sq.m	0	0.71	1.49	0	0
/ 04	Geo-textile, t=1.5 mm	cu.m	0	8.76	4.40	0	0
/ 05	Gravel bedding	cu.m	0	8.76	4.40	0	0
/ 06	Cobble/rubble filling	cu.m	0	18.60	14.50	0	0
/ 07	Wet cobble/rubble masonry, type 1	cu.m	0	29.00	13.10	0	0
/ 08	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	lin.m	0	2.20	0.80	0	0
/ 09	PVC pipe for weep hole, diam. 50 mm	lin.m	0	3.90	2.48	0	0
/ 10	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	0	51.95	23.75	0	0
/ 11	Concrete, type 4, for foundation	cu.m	0	46.67	21.49	0	0
/ 12	Concrete, type 5, for leveling	sq.m	0	2.54	11.22	0	0
/ 13	Form, type F2, for Item No. 2.4/11	kg	0	0.44	0.16	0	0
/ 14	Reinforcing bars, for Item No. 2.4/11		0			0	0

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (5/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 15	Rubber joint filler, t=10 mm	sq.m	0	7.16	6.30	0	0
	Sub-total Item No. 2.4					0	0
2.5	Concrete Ditch and Culvert						
/ 01	Excavation of channel including trench cut	cu.m	2,589	2.53	1.38	6,550	3,573
/ 02	Rubble bedding	cu.m	328	8.76	4.40	2,873	1,443
/ 03	Geo-textile, t=1.5mm	sq.m	27	0.71	1.49	19	40
/ 04	Back filling	cu.m	1,189	0.40	1.30	476	1,546
/ 05	Gravel filter	cu.m	8	8.65	4.47	69	36
/ 06	PVC pipe for weep hole, diam. 50 mm	lin.m	118	2.20	0.80	260	94
/ 07	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	664	29.00	13.10	19,256	8,698
/ 08	Concrete, type 4, for ditch and culvert	cu.m	915	51.95	23.75	47,534	21,731
/ 09	Concrete, type 5, for leveling	cu.m	142	46.67	21.49	6,627	3,052
/ 10	Form, type F1, for Item Nos. 2.5/08 and 2.5/09	sq.m	1,640	1.99	7.08	3,264	11,611
/ 11	Form, type F2, for Item Nos. 2.5/08 and 2.5/09	sq.m	1,225	2.54	11.22	3,112	13,745
/ 12	Reinforcing bars, for Item Nos. 2.5/08	kg	54,893	0.44	0.16	24,153	8,783
/ 13	PVC waterstop, W=200mm	lin.m	320	5.25	2.85	1,680	912
/ 14	Joint bar, diam. 25 mm, L=1m	nos.	392	0.56	0.19	220	74
/ 15	Bitumen coating	sq.m	33	0.70	0.90	23	30
	Sub-total of Item No. 2.5					116,116	75,368
	<b>TOTAL OF ITEM NO.2</b>					116,124	75,375
3	<b>DRAINAGE FACILITIES</b>						
3.1	Sluiceway						
/ 01	Coffering and care of water including dewatering	L.S.	1	180.00	150.00	180	150
/ 02	Excavation including trench cut	cu.m	11	2.53	1.38	28	15
/ 03	Back filling with selected materials	cu.m	11	0.40	1.30	4	14
/ 04	Geo-textile, t=1.5 mm	sq.m	1	0.71	1.49	1	1

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (6/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 05	Gravel bedding	cu.m	4	8.76	4.40	35	18
/ 06	Wet cobble/rubble masonry, type 2	cu.m	10	25.90	30.40	259	304
/ 07	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	7	29.00	13.10	203	92
/ 08	PVC pipe for weep hole, diam. 50mm	lin.m	2	2.20	0.80	4	2
/ 09	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	0	74.64	8.30	0	0
/ 10	Driving of steel sheet pile, for Item No. 3.1/09	sq.m	0	10.93	3.82	0	0
/ 11	Furnishing RC Piles, 250 mm x 250 mm	lin.m	48	6.93	4.17	333	200
/ 12	Driving of RC piles, for Item No. 3.1/11	sq.m	48	7.44	2.40	357	115
/ 13	Concrete, type 3, for blockout concrete	cu.m	1	52.68	24.06	53	24
/ 14	Concrete, type 4, for sluiceway structures & revetment	cu.m	9	51.95	23.75	468	214
/ 15	Concrete, type 5, for leveling	cu.m	1	46.67	21.49	47	21
/ 16	Base mortar	cu.m	2	42.30	64.30	85	129
/ 17	Form, type F1, for Item Nos. 3.1/13 and 3.1/14	sq.m	14	1.99	7.08	28	99
/ 18	Form, type F2, for Item Nos. 3.1/13 and 3.1/14	sq.m	15	4.53	11.22	68	168
/ 19	Reinforcing bars, for Item Nos. 3.1/13 and 3.1/14	kg	980	0.44	0.16	431	157
/ 20	Rubber joint filler, t= 10 mm	sq.m	0	7.16	6.30	0	0
/ 21	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 0.8 m x H = 0.8 m	set	0	3,068.00	341.00	0	0
/ 22	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.0 m x H = 1.0 m	set	0	3,413.00	380.00	0	0
/ 23	Steel slide gate including hoist, guide frame, accessories and spare parts, W= 1.1 m x H = 1.1 m	set	1	3,705.00	412.00	3,705	412
/ 24	Steel flap gate including guide frame, accessories and spare parts, W= 0.4 m x H = 0.4 m	set	0	461.00	52.00	0	0
	Sub-total of Item No. 3.1					6,289	2,135
3.2	Connection Canal / Cross Drain	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	47	3.28	1.89	154	89
/ 02	Trench excavation	cu.m	9	0.40	1.30	4	12
/ 03	Back filling with excavated materials	cu.m	14	8.76	4.40	123	62
/ 04	Gravel bedding	lin.m	8	25.40	12.20	203	98
/ 05	Precast concrete culvert, 400x400mm						

**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (7/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 06	Precast concrete side ditch, U-type, 400x400mm	lin.m	0	15.90	8.20	0	0
/ 07	Precast concrete side ditch, L-type, 300x300mm	lin.m	320	7.50	3.90	2.400	1,248
	Sub-total of Item No. 3.2					2.884	1,509
	<b>TOTAL OF ITEM NO. 3</b>					9.173	3,644
<b>4</b>	<b>BRIDGE AND ROAD</b>						
4.1	Care of River						
/ 01	Coffering and care of water including dewatering	L.S.	1	0.00	0.00	0	0
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	1	3.81	3.51	4	4
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	22	3.23	2.47	71	54
	Sub-total of Item No. 4.1					75	58
4.2	Foundation and Substructure						
/ 01	Furnishing and driving test PC pile, 350 mm, A type, L= 11 m	nos.	0	313.00	130.00	0	0
/ 02	Furnishing and driving test PC pile, 350 mm, A type, L= 12 m	nos.	0	328.00	136.00	0	0
/ 03	Furnishing and driving test PC pile, 350 mm, A type, L= 13 m	nos.	0	342.00	142.00	0	0
/ 04	Furnishing and driving test PC pile, 350 mm, A type, L= 17 m	nos.	0	401.00	167.00	0	0
/ 05	Furnishing PC pile, 350 mm, A type, L= 11 m	nos.	0	155.00	66.00	0	0
/ 06	Driving PC piles, for Item No. 4.2/05	lin.m	0	7.55	3.98	0	0
/ 07	Furnishing PC pile, 350 mm, A type, L= 12 m	nos.	0	169.00	72.00	0	0
/ 08	Driving PC piles, for Item No. 4.2/07	lin.m	0	10.38	4.87	0	0
/ 09	Furnishing PC pile, 350 mm, A type, L= 13 m	nos.	0	183.00	78.00	0	0
/ 10	Driving PC piles, for Item No. 4.2/09	lin.m	0	9.59	4.50	0	0
/ 11	Furnishing PC pile, 350 mm, A type, L= 17 m	nos.	0	240.00	103.00	0	0
/ 12	Driving PC piles, for Item No. 4.2/11	lin.m	0	7.33	3.44	0	0
/ 13	Furnishing PC pile, 350 mm, B type, L= 11 m	nos.	0	192.00	82.00	0	0
/ 14	Driving PC piles, for Item No. 4.2/13	lin.m	0	7.55	3.98	0	0
/ 15	Furnishing PC pile, 350 mm, B type, L= 12 m	nos.	0	209.00	90.00	0	0
/ 16	Driving PC piles, for Item No. 4.2/15	lin.m	0	10.38	4.87	0	0
/ 17	Furnishing PC pile, 350 mm, B type, L= 13 m	nos.	0	227.00	97.00	0	0
/ 18	Driving PC piles, for Item No. 4.2/17	lin.m	0	9.59	4.50	0	0
/ 19	Furnishing PC pile, 350 mm, B type, L= 17 m	nos.	0	297.00	127.00	0	0



**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (8/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 20	Driving PC piles, for Item No. 4.2/19	lin.m	0	7.33	3.44	0	0
/ 21	Concrete, type 2, for bridge slab, pier and abutment	cu.m	75	53.78	24.54	4,034	1,841
/ 22	Concrete, type 5, for leveling, t = 10 cm.	cu.m	7	46.67	21.49	327	150
/ 23	Form, type F1, for Item Nos. 4.2/21 and 4.2/22	sq.m	312	1.99	7.08	621	2,209
/ 24	Reinforcing bars, for Item No. 4.2/21	kg	6,710	0.44	0.16	2,952	1,074
	Sub-total of Item No. 4.2					7,934	5,274
4.3	Superstructure						
/ 03	Furnish and erection of PC girder, H=450mm, L=9.6m, BM-70	pc.	0	673.00	304.00	0	0
/ 11	Furnish and erection of PC girder, H=550mm, L=14.1m, BM-70	pc.	0	1,233.00	536.00	0	0
/ 17	Furnish and erection of PC girder, H=500mm, L=12.9m, BM-100	pc.	0	1,037.00	452.00	0	0
/ 30	Concrete, type 2, for lateral girder, side wall and in-situ slab	cu.m	13	53.78	24.54	699	319
/ 31	Concrete, type 4, for side walk	cu.m	0	51.95	23.75	0	0
/ 32	Form, type F1, for Item Nos. 4.3/30 and 4.3/31	sq.m	86	3.86	8.86	332	762
/ 33	Reinforcing bars, for Item Nos. 4.3/30 and 4.3/31	kg	1,322	0.44	0.16	582	212
/ 34	Curb stone	lin.m	0	10.60	5.10	0	0
/ 36	Non-shrink mortar with grid bars, for shoe base	lit.	0.0	1.84	1.27	0	0
/ 37	Anchoring in fixed bearing shoe	nos.	0	12.02	6.48	0	0
/ 38	Anchoring in movable bearing shoe	nos.	0	10.60	6.31	0	0
/ 39	Bearing shoe, fix	nos.	0	2,018.00	231.00	0	0
/ 41	Guard pipe for Road bridge, H=0.4m	lin.m	12.4	41.40	11.30	513	140
/ 42	Guard pipe for pedestrian bridge, H=1.0m	lin.m	0.0	174.00	27.00	0	0
/ 45	Drain pipe, D=75mm, L=40cm	nos.	0	2.37	1.62	0	0
/ 47	Expansion joint, for pedestrian and in-situ slab bridges	lin.m	12.4	342.00	46.00	4,241	570
/ 48	Asphalt pavement	cu.m	4	71.10	48.60	284	194
	Sub-total of Item No. 4.3					6,651	2,197
4.4	Approach Cushion Slab						
/ 01	Concrete, type 4, for slab	cu.m	0	51.95	23.75	0	0
/ 02	Form, type F1, for Item No. 4.4/01	sq.m	0	1.99	7.08	0	0
/ 03	Reinforcing bars, for Item No. 4.4/01	kg	0	0.44	0.16	0	0

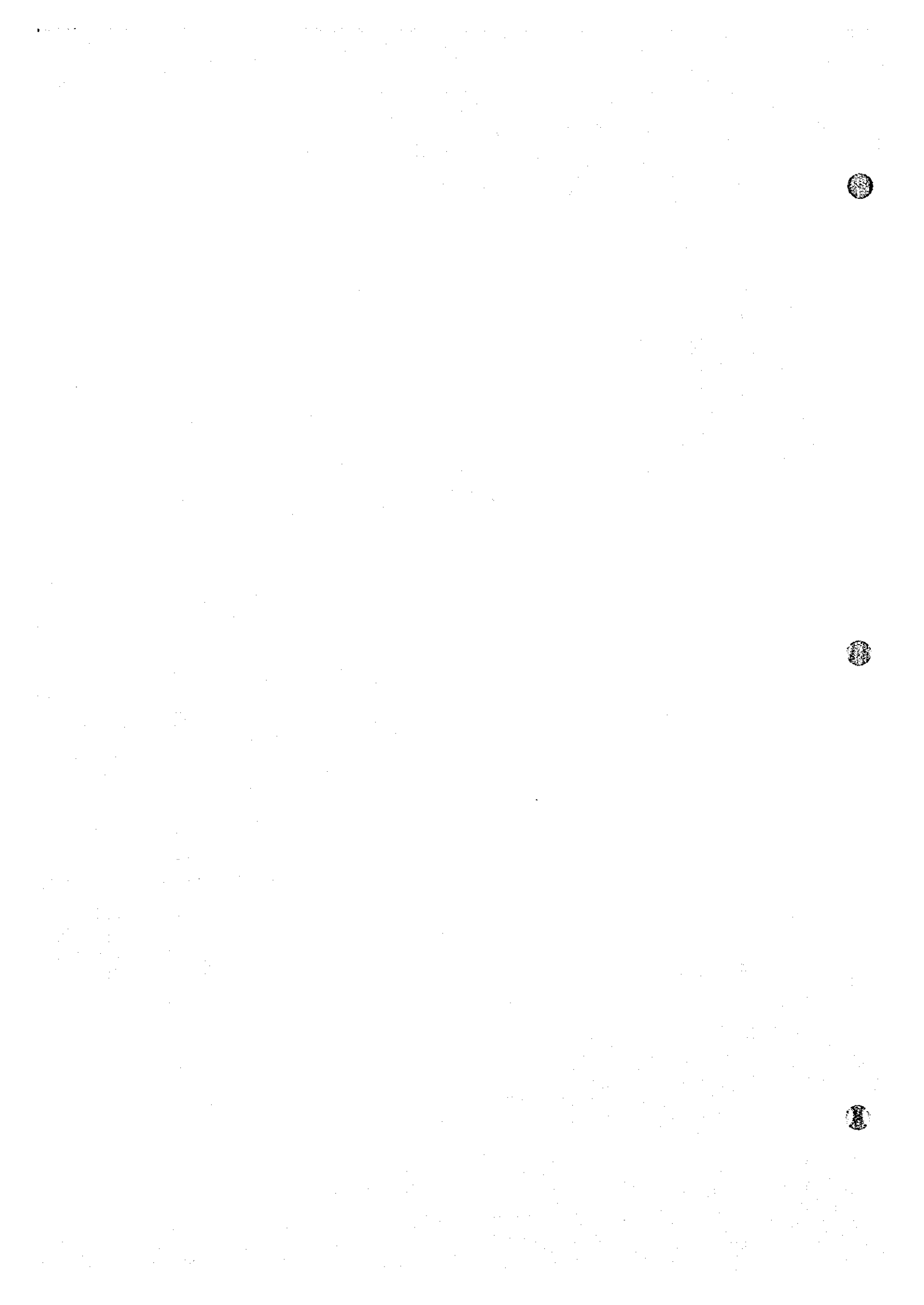
**BILL OF QUANTITIES FOR PACKAGE 2, PIK JUNCTION (9/9)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
	Sub-total of Item No. 4.4					0	0
4.5	Approach Road	sq.m	0	3.81	3.51	0	0
/ 01	Removal of existing concrete pavement	sq.m	0	3.23	2.47	0	0
/ 02	Removal of existing asphalt/base pavement	cu.m	0	2.53	1.38	0	0
/ 03	Excavation	cu.m	0	0.40	1.30	0	0
/ 04	Back filling	cu.m	0	18.60	14.50	0	0
/ 05	Wet rubble/cobble masonry for slope protection	cu.m	0	51.95	23.75	0	0
/ 06	Concrete, type 4, for side wall	cu.m	0	46.67	21.49	0	0
/ 07	Concrete, type 5, for foundation concrete	cu.m	0	1.99	7.08	0	0
/ 08	Form, type F1, for Item No. 4.5/06	sq.m	0	2.54	8.75	0	0
/ 09	Form, type F2, for Item Nos. 4.5/06 to 4.5/07	sq.m	0	6.40	3.40	0	0
/ 10	Precast concrete drain block, type 5a	nos.	0	12.20	6.40	0	0
/ 11	Precast concrete side ditch, 300 x 300 mm	lin.m	0	3.53	2.34	0	0
/ 12	Embankment and sub-grade	cu.m	0	6.30	2.80	0	0
/ 13	Sub-base course	cu.m	0	9.60	4.00	0	0
/ 14	Base course	cu.m	0	71.10	48.60	0	0
/ 15	Asphalt pavement	cu.m	0			0	0
	Sub-total of Item No. 4.5					0	0
	<b>TOTAL OF ITEM NO. 4</b>					14,660	7,529
<b>SUMMARY OF AMOUNT</b>							
No. 0	GENERAL ITEM					13,682	16,066
No. 1	RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES					0	0
No. 2	DRAINAGE CHANNEL					116,124	75,375
No. 3	DRAINAGE FACILITIES					9,173	3,644
No. 4	BRIDGE AND ROAD					14,660	7,529
	<b>TOTAL OF CONSTRUCTION COST EQUIVALENT TO (US\$)</b>					153,639	102,614
						256,253	

**APPENDIX 8-3**

***Priced Bill of Quantities for***

***Package-3***



**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (1/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
0	<b>GENERAL ITEM</b>						
/ 01	Construction, maintenance and subsequent removal of temporary access roads including temporary bridges to various working areas	L.S.	0.174	14,600.00	9,100.00	2,540	1,583
/ 02	Maintenance of existing public roads utilized for construction purpose, including temporary supports to strengthen existing roads, waterways, piers and abutments of bridges, and traffic control	L.S.	0.174	34,700.00	20,600.00	6,038	3,584
/ 03	Construction, operation, maintenance and subsequent removal of the Engineer's office	L.S.	0.174	0.00	46,800.00	0	8,143
/ 04	Furnishing of office furniture required for the temporary Engineer's office	P.S.	0.174	2,000.00	2,300.00	348	400
/ 05	Construction, operation, maintenance and subsequent removal of the Contractor's temporary buildings and facilities, including offices, staff quarter, labor camps, motor pool, repair shop, warehouses, work shops, guard house, fence, and rental fee of land	L.S.	0.174	50,300.00	153,100.00	8,752	26,639
/ 06	Construction, operation, maintenance and subsequent removal of the Contractor's laboratory, including provision of necessary testing instruments and apparatus	L.S.	0.174	10,900.00	5,400.00	1,897	940
/ 07	Provision of first aid kit boxes in all sites and an ambulance with driver	L.S.	0.174	21,600.00	15,100.00	3,758	2,627
/ 08	Installation, operation, maintenance and subsequent removal of temporary water supply system including drainage and sewage systems	L.S.	0.174	9,980.00	10,880.00	1,737	1,893
/ 09	Installation, operation, maintenance and subsequent removal of temporary electric supply system	L.S.	0.174	54,800.00	9,670.00	9,535	1,683
/ 10	Installation, operation, maintenance and subsequent removal of temporary telecommunication system connecting with office, work shops and construction sites	L.S.	0.174	27,530.00	13,480.00	4,790	2,346
/ 11	Boreholes and exploratory excavation	P.S.	0.174	1,280.00	740.00	223	129

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (2/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	All risk insurance of works for permanent and temporary facilities, and insurance for third parties	L.S.	0.174	12,900.00	8,300.00	2,245	1,444
/ 13	Provision of safety equipment and instruments for laborers, and installation, maintenance and subsequent removal of safety instruments and sign boards	L.S.	0.174	10,000.00	5,000.00	1,740	870
/ 14	Furnishing of survey equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.174	3,670.00	980.00	639	171
/ 15	Furnishing, operation and maintenance of transportation equipment for the Engineer's use and subsequent hand over it to the Engineer	L.S.	0.174	53,760.00	15,840.00	9,354	2,756
/ 16	Topographic survey	P.S.	0.174	40,600.00	43,500.00	7,064	7,569
/ 17	Site clearance in acquired areas with houses and other buildings	sq.m	1.169	1.01	0.62	1.181	725
	<b>TOTAL OF ITEM NO.0</b>					61,841	63,502
<b>1</b>	<b>RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES</b>						
/ 01	Public utilities subject to relocation/reconstruction for electricity facilities	P.S.	1	0.00	117,600.00	0	117,600
/ 02	Public utilities subject to relocation/reconstruction for water supply/drainage facilities	P.S.	1	0.00	1,700.00	0	1,700
/ 03	Public utilities subject to relocation/reconstruction for communication facilities	P.S.	1	0.00	72,560.00	0	72,560
/ 04	Public utilities subject to relocation/reconstruction for other facilities	P.S.	1	0.00	800.00	0	800
	<b>TOTAL OF ITEM NO.1</b>					0	192,660

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (3/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
2	<b>DRAINAGE CHANNEL</b>						
2.1	Drainage Channel	cu.m	17,925	2.53	1.38	45,350	24,737
/ 01	Excavation	cu.m	1,444	3.23	2.47	4,664	3,567
/ 02	Demolishing, hauling and disposing asphalt/masonry structures						
	Sub-total of Item No. 2.1					50,014	28,304
2.2	Levee and Inspection/Relocation Road	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	sq.m	1,484	0.86	0.47	1,276	697
/ 02	Stripping, grubbing and clearing	cu.m	0	2.53	1.38	0	0
/ 03	Excavation	cu.m	1,053	3.53	2.34	3,717	2,464
/ 04	Embankment	cu.m	0	0.40	1.30	0	0
/ 05	Back filling with selected material	cu.m	0	0.30	1.10	0	0
/ 06	Filling-up by random material	sq.m	0	0.71	1.49	0	0
/ 07	Geo-textile, t=1.5mm	sq.m	290	0.02	1.43	6	415
/ 08	Sod facing	cu.m	0	29.00	13.10	0	0
/ 09	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	212	6.30	2.80	1,336	594
/ 10	Sub-base course	cu.m	159	9.60	4.00	1,526	636
/ 11	Base course	sq.m	1,060	3.60	2.40	3,816	2,544
/ 12	Asphalt pavement						
	Sub-total of Item No. 2.2					11,677	7,350
2.3	Concrete Parapet Wall	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	0	2.53	1.38	0	0
/ 02	Excavation for footing of parapet wall	cu.m	0	0.40	1.30	0	0
/ 03	Back filling with selected material	cu.m	0	29.00	13.10	0	0
/ 04	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	sq.m	0	74.64	8.30	0	0
/ 05	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	0	10.93	3.82	0	0
/ 06	Driving steel sheet pile, for Item No. 2.3/05	lin.m	0	6.93	4.17	0	0
/ 07	Furnishing RC piles, 250 x 250 mm	lin.m	0	7.44	2.40	0	0
/ 08	Driving RC piles, for Item No. 2.3/07	cu.m	0	51.95	23.75	0	0
/ 09	Concrete, type 4, for footing and wall						

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (4/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 10	Concrete, type 5, for leveling	cu.m	0	46.67	21.49	0	0
/ 11	Form, type F1, for Item No. 2.3/09	sq.m	0	1.99	7.08	0	0
/ 12	Form, type F2, for Item No. 2.3/09	sq.m	0	2.54	11.22	0	0
/ 13	Reinforcing bars, for Item No. 2.3/09	kg	0	0.44	0.16	0	0
/ 14	PVC waterstop, W=200 mm	lin.m	0	5.25	2.85	0	0
/ 15	Rubber joint filler, t=10 mm	sq.m	0	7.16	6.30	0	0
/ 16	Bituminous coating	sq.m	0	0.70	0.90	0	0
/ 17	Furnishing and installing trap	kg	0	0.57	0.35	0	0
	Sub-total of Item No. 2.3					0	0
2.4	Masonry Revetment, Type I	L.S.	1	1,070.00	870.00	1,070	870
/ 01	Coffering and care of water including dewatering	cu.m	0	3.23	2.47	0	0
/ 02	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	1,029	2.53	1.38	2,603	1,420
/ 03	Excavation	cu.m	93	0.40	1.30	37	121
/ 04	Back filling	sq.m	17	0.71	1.49	12	25
/ 05	Geo-textile, t=1.5 mm	cu.m	166	8.76	4.40	1,454	730
/ 06	Gravel bedding	cu.m	57	8.76	4.40	499	251
/ 07	Cobble/rubble filling	cu.m	348	18.60	14.50	6,473	5,046
/ 08	Wet cobble/rubble masonry, type 1	cu.m	0	29.00	13.10	0	0
/ 09	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	398	24.80	11.30	9,870	4,497
/ 10	Gabion mattress, 3.0x1.5x0.5 m, galvanized wire	lin.m	105	2.20	0.80	231	84
/ 11	PVC pipe for weep hole, diam. 50 mm	lin.m	402	3.90	2.48	1,568	997
/ 12	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	66	51.95	23.75	3,429	1,568
/ 13	Concrete, type 4, for foundation	cu.m	27	46.67	21.49	1,260	580
/ 14	Concrete, type 5, for leveling	sq.m	340	2.54	11.22	864	3,815
/ 15	Form, type F2, for Item No. 2.4/13	kg	2,631	0.44	0.16	1,158	421
/ 16	Reinforcing bars, for Item No. 2.4/13	kg	60	7.16	6.30	430	378
/ 17	Rubber joint filler, t=10 mm	sq.m					
	Sub-total Item No. 2.4					30,958	20,803



**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (5/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
2.5	Masonry Revetment, type II	L.S.	1	7,660.00	6,240.00	7,660	6,240
/ 01	Coffering and care of water including dewatering	cu.m	0	3.81	3.51	0	0
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	8,375	2.53	1.38	21,189	11,558
/ 03	Excavation	cu.m	737	0.40	1.30	295	958
/ 04	Back filling	sq.m	132	0.71	1.49	94	197
/ 05	Geo-textile, t=1.5 mm	cu.m	915	8.76	4.40	8,015	4,026
/ 06	Gravel bedding	cu.m	448	8.76	4.40	3,924	1,971
/ 07	Cobble/rubble filling	cu.m	3,524	18.60	14.50	65,546	51,098
/ 08	Wet cobble/rubble masonry, type 1	cu.m	0	29.00	13.10	0	0
/ 09	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	3,153	24.80	11.30	78,194	35,629
/ 10	Gabion mattress, 3.0x1.5x0.5 m, galvanized wire	lin.m	830	2.20	0.80	1,826	664
/ 11	PVC pipe for weep hole, diam. 50 mm	lin.m	3,165	3.90	2.48	12,344	7,849
/ 12	Furnishing and driving wooden piles, diam. 15-18cm	cu.m	523	51.95	23.75	27,170	12,421
/ 13	Concrete, type 4, for foundation	cu.m	212	46.67	21.49	9,894	4,556
/ 14	Concrete, type 5, for leveling	sq.m	2,695	2.54	11.22	6,845	30,238
/ 15	Form, type F2, for Item No. 2.5/13	kg	20,881	0.44	0.16	9,188	3,341
/ 16	Reinforcing bars, for Item No. 2.5/13	sq.m	591	7.16	6.30	4,232	3,723
/ 17	Rubber joint filler, t=10 mm						
	Sub-total Item No. 2.5					256,416	174,469
2.6	Concrete Ditch and Culvert	L.S.	1	0.00	0.00	0	0
/ 01	Coffering and care of water including dewatering	cu.m	0	3.81	3.51	0	0
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	0	3.23	2.47	0	0
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	697	2.53	1.38	1,765	962
/ 04	Excavation of channel including trench cut	cu.m	0	8.76	4.40	0	0
/ 05	Rubble bedding	sq.m	3	0.71	1.49	2	4
/ 06	Geo-textile, t=1.5mm	cu.m	185	0.40	1.30	74	241
/ 07	Back filling	cu.m	1	8.65	4.47	9	4
/ 08	Gravel filter	lin.m	12	2.20	0.80	26	10
/ 09	PVC pipe for weep hole, diam. 50 mm	cu.m	0	29.00	13.10	0	0
/ 10	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	105	24.80	11.30	2,604	1,187
/ 11	Gabion mattress, 3.0x1.5x0.5 m, galvanized wire						

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (6/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 12	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	120	74.64	8.30	8,957	996
/ 13	Driving steel sheet pile, for Item No. 2.6/12	sq.m	120	10.93	3.82	1,312	458
/ 14	Furnishing RC piles, 250 mm x 250 mm	lin.m	0	6.93	4.17	0	0
/ 15	Driving RC piles, for Item No. 2.6/14	lin.m	0	7.44	2.40	0	0
/ 16	Concrete, type 3, for blockout concrete	cu.m	0	52.68	24.06	0	0
/ 17	Concrete, type 4, for ditch and culvert	cu.m	202	51.95	23.75	10,494	4,798
/ 18	Concrete, type 5, for leveling	cu.m	29	46.67	21.49	1,353	623
/ 19	Form, type F1, for Item Nos. 2.6/16 and 2.8/17	sq.m	272	1.99	7.08	541	1,926
/ 20	Form, type F2, for Item Nos. 2.6/16 and 2.6/17	sq.m	207	2.54	11.22	526	2,323
/ 21	Reinforcing bars, for Item Nos. 2.6/16 and 2.6/17	kg	12,117	0.44	0.16	5,331	1,939
/ 22	PVC waterstop, W=200mm	lin.m	57	5.25	2.85	299	162
/ 23	Joint bar, diam. 25 mm, L=1m	nos.	57	0.56	0.19	32	11
/ 24	Rubber joint filler, t= 10 mm	sq.m	0	7.16	6.30	0	0
/ 25	Bitumen coating	sq.m	20	0.70	0.90	14	18
/ 26	Furnishing and Installing of trashrack and accessories	kg	0	0.90	0.56	0	0
/ 27	Furnishing and Installing steel mesh cover	kg	0	2.48	0.99	0	0
/ 28	Galvanized steel pipe, diam. 1 1/4"	kg	0	0.93	1.30	0	0
/ 29	Galvanized steel pipe, diam. 3/4"	kg	0	1.24	1.59	0	0
/ 30	Fence, H=2.5m	sq.m	0	10.49	2.21	0	0
Sub-total of Item No. 2.6						33,337	15,662
TOTAL OF ITEM NO.2						382,402	246,588
<b>3 DRAINAGE FACILITIES</b>							
3.1	Sluiceway	L.S.	1	1,070.00	870.00	1,070	870
/ 01	Coffering and care of water including dewatering	cu.m	20	3.81	3.51	76	70
/ 02	Demolishing, hauling and disposing existing concrete structures	cu.m	38	3.23	2.47	123	94
/ 03	Demolishing, hauling and disposing existing asphalt/masonry structures	cu.m	590	2.53	1.38	1,493	814
/ 04	Excavation including trench cut	cu.m	121	0.40	1.30	48	157
/ 05	Back filling with selected materials	sq.m	4	0.71	1.49	3	6
/ 06	Geo-textile, t=1.5 mm						

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (7/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 07	Sod facing	sq.m	0	0.02	1.43	0	0
/ 08	Gravel bedding	cu.m	9	8.76	4.40	79	40
/ 09	Cobble/rubble filling	cu.m	0	8.76	4.40	0	0
/ 10	Wet cobble/rubble masonry, type 2	cu.m	21	25.90	30.40	544	638
/ 11	Gabion mattress, 3.0x1.5x0.5 m, PVC coated wire	cu.m	58	29.00	13.10	1,682	760
/ 12	Gabion mattress, 3.0x1.5x0.5 m, galvanized wire	cu.m	36	24.80	11.30	893	407
/ 13	PVC pipe for weep hole, diam. 50mm	lin.m	6	2.20	0.80	13	5
/ 14	Bitumen coating	sq.m	0	0.70	0.90	0	0
/ 15	Furnishing steel sheet pile, YSPF, W= 400mm	sq.m	100	74.64	8.30	7,464	830
/ 16	Driving of steel sheet pile, for Item No. 3.1/15	sq.m	100	10.93	3.82	1,093	382
/ 17	Furnishing RC Piles, 250 mm x 250 mm	lin.m	474	6.93	4.17	3,285	1,977
/ 18	Driving of RC piles, for Item No. 3.1/17	sq.m	474	7.44	2.40	3,527	1,138
/ 19	Furnishing RC Piles, 300 mm x 300 mm	lin.m	0	9.88	5.93	0	0
/ 20	Driving of RC piles, for Item No. 3.1/19	lin.m	0	7.44	2.40	0	0
/ 21	Concrete, type 3, for blockout concrete	cu.m	7	52.68	24.06	369	168
/ 22	Concrete, type 4, for sluiceway structures & revetment	cu.m	98	51.95	23.75	5,091	2,328
/ 23	Concrete, type 5, for leveling	cu.m	11	46.67	21.49	513	236
/ 24	Base mortar	cu.m	10	42.30	64.30	423	643
/ 25	Form, type F1, for Item Nos. 3.1/21 and 3.1/22	sq.m	364	1.99	7.08	724	2,577
/ 26	Form, type F2, for Item Nos. 3.1/21 and 3.1/22	sq.m	175	4.53	11.22	793	1,964
/ 27	Reinforcing bars, for Item Nos. 3.1/21 and 3.1/22	kg	11,546	0.44	0.16	5,080	1,847
/ 28	Joint bars, diam. 25mm, L=1m	nos.	0	0.56	0.19	0	0
/ 29	PVC waterstop, W=200mm	lin.m	0	5.25	2.85	0	0
/ 30	Rubber joint filler, t= 10 mm	sq.m	19	7.16	6.30	136	120
/ 31	Sub-base course	cu.m	0	6.30	2.80	0	0
/ 32	Base-course	cu.m	0	9.60	4.00	0	0
/ 33	Asphalt pavement	sq.m	0	3.60	2.40	0	0
/ 34	Furnishing and installing traps	kg	0	0.57	0.35	0	0
/ 35	Steel galvanized pipe, diam. 1 1/4"	kg	0	0.93	1.30	0	0
/ 36	Steel galvanized pipe, diam. 3/4"	kg	0	1.24	1.59	0	0
/ 37	Embedded metal for stoplog groove	kg	0	0.73	0.41	0	0
/ 38	Steel slide gate including hoist, guide frame, accessories and spare parts, W=0.7 m x H= 0.7 m	set	4	2,668.00	297.00	10,672	1,188

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (8/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
/ 39	Steel slide gate including hoist, guide frame, accessories and spare parts, W = 0.8 m x H = 0.8 m	set	0	3,068.00	341.00	0	0
/ 40	Steel slide gate including hoist, guide frame, accessories and spare parts, W = 0.9 m x H = 0.9 m	set	2	3,149.00	350.00	6,298	700
/ 41	Steel slide gate including hoist, guide frame, accessories and spare parts, W = 1.0 m x H = 1.0 m	set	0	3,413.00	380.00	0	0
/ 42	Steel slide gate including hoist, guide frame, accessories and spare parts, W = 1.1 m x H = 1.1 m	set	0	3,705.00	412.00	0	0
/ 43	Steel slide gate including hoist, guide frame, accessories and spare parts, W = 1.2 m x H = 1.2 m	set	0	3,975.00	442.00	0	0
/ 44	Steel slide gate including hoist, guide frame, accessories and spare parts, W = 1.5 m x H = 1.3 m	set	0	4,580.00	509.00	0	0
/ 45	Timber stoplog, W = 2.3 m x H = 2.3 m	set	0	1,576.00	1,576.00	0	0
/ 46	Steel stand for portable hanger	set	0	307.00	35.00	0	0
/ 47	Portable hanger, handling tools and slings for 2.3mx2.3m stoplog	set	0	383.00	43.00	0	0
Sub-total of Item No. 3.1						51,492	19,959
3.2	Connection Canal / Cross Drain	L.S.	1	270.00	220.00	270	220
/ 01	Coffering and care of water including dewatering	cu.m	373	3.28	1.89	1,223	705
/ 02	Trench excavation	cu.m	75	0.40	1.30	30	98
/ 03	Back filling with excavated materials	cu.m	69	8.76	4.40	604	304
/ 04	Gravel bedding	cu.m	1	51.95	23.75	52	24
/ 05	Concrete, type 4, for slab, strut and facing concrete of wet rubble masonry	cu.m	1	46.67	21.49	47	21
/ 06	Concrete, type 5, for leveling	sq.m	8	2.54	8.75	20	70
/ 07	Form, type F2, for Item No. 3.2/05	kg	46	0.44	0.16	20	7
/ 08	Reinforcing bars, for Item No. 3.2/05	sq.m	2	7.16	6.30	14	13
/ 09	Rubber joint filler, t = 10 mm	lin.m	19	25.40	12.20	483	232
/ 10	Precast concrete culvert, 400x400mm	lin.m	1,480	15.90	8.20	23,532	12,136
/ 11	Precast concrete side ditch, U-type, 400x400mm						
Sub-total of Item No. 3.2						26,295	13,830

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (9/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
<b>TOTAL OF ITEM NO. 3</b>							
4	<b>BRIDGE AND ROAD</b>						
4.1	Care of River						
/ 01	Coffering and care of water including dewatering	L.S.	1	27,720.00	10,110.00	27,720	10,110
/ 02	Demolishing, hauling and disposing concrete structures	cu.m	42	3.81	3.51	160	147
/ 03	Demolishing, hauling and disposing asphalt/masonry structures	cu.m	387	3.23	2.47	1,250	956
/ 04	Demolishing, hauling and disposing steel members	ton	4.0	16.60	46.20	66	185
<b>Sub-total of Item No. 4.1</b>							
4.2	Foundation and Substructure						
/ 01	Furnishing and driving test PC pile, 350 mm, A type, L= 7 m	nos.	0	214.00	90.00	0	0
/ 02	Furnishing and driving test PC pile, 350 mm, A type, L= 8 m	nos.	0	228.00	96.00	0	0
/ 03	Furnishing and driving test PC pile, 350 mm, A type, L= 9 m	nos.	1	242.00	102.00	242	102
/ 04	Furnishing and driving test PC pile, 350 mm, A type, L= 10 m	nos.	4	299.00	124.00	1,196	496
/ 05	Furnishing and driving test PC pile, 350 mm, A type, L= 11 m	nos.	5	313.00	130.00	1,565	650
/ 06	Furnishing PC pile, 350 mm, A type, L= 7 m	nos.	0	98.00	42.00	0	0
/ 07	Driving PC piles, for Item No. 4.2/06	lin.m	0	11.86	6.26	0	0
/ 08	Furnishing PC pile, 350 mm, A type, L= 8 m	nos.	0	112.00	48.00	0	0
/ 09	Driving PC piles, for Item No. 4.2/08	lin.m	0	10.38	5.48	0	0
/ 10	Furnishing PC pile, 350 mm, A type, L= 9 m	nos.	3	126.00	54.00	378	162
/ 11	Driving PC piles, for Item No. 4.2/10	lin.m	21	9.23	4.87	194	102
/ 12	Furnishing PC pile, 350 mm, A type, L= 10 m	nos.	44	140.00	60.00	6,160	2,640
/ 13	Driving PC piles, for Item No. 4.2/12	lin.m	352	8.30	4.38	2,922	1,542
/ 14	Furnishing PC pile, 350 mm, A type, L= 11 m	nos.	43	155.00	66.00	6,665	2,838
/ 15	Driving PC piles, for Item No. 4.2/14	lin.m	387	7.55	3.98	2,922	1,540
/ 16	Concrete, type 2, for bridge slab, pier and abutment	cu.m	182	53.78	24.54	9,788	4,466
/ 17	Concrete, type 5, for leveling, t = 10 cm.	cu.m	15	46.67	21.49	700	322
/ 18	Form, type F1, for Item Nos. 4.2/16 and 4.2/17	sq.m	443	1.99	7.08	882	3,136
/ 19	Reinforcing bars, for Item No. 4.2/16	kg	17,692	0.44	0.16	7,784	2,831
<b>Sub-total of Item No. 4.2</b>							
						41,398	20,827

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (10/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
4.3	Superstructure						
/ 01	Furnish and erection of PC girder, H=450mm, L=10.5m, BM-70	pc.	0	747.00	335.00	0	0
/ 02	Furnish and erection of PC girder, H=450mm, L=11.3m, BM-70	pc.	0	801.00	358.00	0	0
/ 03	Furnish and erection of PC girder, H=550mm, L=14.1m, BM-70	pc.	0	1,233.00	536.00	0	0
/ 04	Furnish and erection of PC girder, H=550mm, L=14.9m, BM-70	pc.	0	1,305.00	568.00	0	0
/ 05	Furnish and erection of PC girder, H=650mm, L=15.8m, BM-70	pc.	66	1,318.00	573.00	86,988	37,818
/ 06	Furnish and erection of PC girder, H=700mm, L=15.8m, BM-70	pc.	4	1,327.00	578.00	5,308	2,312
/ 07	Furnish and erection of PC girder, H=550mm, L=13.5m, BM-100	pc.	0	1,184.00	515.00	0	0
/ 08	Furnish and erection of PC girder, H=450mm, L=12.6m, Pedestrian	pc.	0	914.00	399.00	0	0
/ 09	Furnish and erection of PC girder, H=450mm, L=14.6m, Pedestrian	pc.	3	1,054.00	459.00	3,162	1,377
/ 10	PC tendon and ancillary materials	lin.m	1,393	4.26	1.00	5,934	1,393
/ 11	Concrete, type 2, for lateral girder, side wall and in-situ slab	cu.m	188	53.78	24.54	10,111	4,614
/ 12	Concrete, type 4, for side walk	cu.m	14	51.95	23.75	727	333
/ 13	Form, type F1, for Item Nos. 4.3/11 and 4.3/12	sq.m	818	3.86	8.86	3,157	7,247
/ 14	Reinforcing bars, for Item Nos. 4.3/11 and 4.3/12	kg	5,257	0.44	0.16	2,313	841
/ 15	Curb stone	lin.m	64.0	10.60	5.10	678	326
/ 16	Rubber bearing pad, t=33mm, W=150mm	lin.m	109.4	217.00	25.70	23,740	2,812
/ 17	Non-shrink mortar with grid bars, for shoe base	lit.	1,080	1.84	1.27	1,987	1,372
/ 18	Anchoring in fixed bearing shoe	nos.	63	12.02	6.48	757	408
/ 19	Anchoring in movable bearing shoe	nos.	63	10.60	6.31	668	398
/ 20	Guard pipe for Road bridge, H=0.4m	lin.m	284.4	41.40	11.30	11,774	3,214
/ 21	Guard pipe for pedestrian bridge, H=1.0m	lin.m	31.6	174.00	27.00	5,498	853
/ 22	Drain pipe (D=100mm, L=84cm) with cap (300x150mm)	nos.	8	4.72	2.14	38	17
/ 23	Drain pipe, D=75mm, L=70cm	nos.	28	4.15	2.08	116	58
/ 24	Drain pipe, D=75mm, L=40cm	nos.	4.0	2.37	1.62	9	6
/ 25	Expansion joint, for road bridge	lin.m	123.0	306.00	42.00	37,638	5,166
/ 26	Expansion joint, for pedestrian and in-situ slab bridges	lin.m	5.0	342.00	46.00	1,710	230
/ 27	Asphalt pavement	cu.m	63	71.10	48.60	4,479	3,062
Sub-total of Item No. 4.3						206,792	73,857

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (11/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
4.4	Approach Cushion Slab						
/ 01	Concrete, type 4, for slab	cu.m	0	51.95	23.75	0	0
/ 02	Form, type F1, for Item No. 4.4/01	sq.m	0	1.99	7.08	0	0
/ 03	Reinforcing bars, for Item No. 4.4/01	kg	0	0.44	0.16	0	0
	Sub-total of Item No. 4.4					0	0
4.5	Approach Road						
/ 01	Removal of existing concrete pavement	sq.m	2,956	3.81	3.51	11,262	10,376
/ 02	Removal of existing asphalt/base pavement	sq.m	5,669	3.23	2.47	18,311	14,002
/ 03	Excavation	cu.m	1,452	2.53	1.38	3,674	2,004
/ 04	Back filling	cu.m	1,029	0.40	1.30	412	1,338
/ 05	Wet rubble/cobble masonry for slope protection	cu.m	0	18.60	14.50	0	0
/ 06	Concrete, type 3, for approach step	cu.m	0	52.68	24.06	0	0
/ 07	Concrete, type 4, for side wall	cu.m	1,592	51.95	23.75	82,704	37,810
/ 08	Concrete, type 5, for foundation concrete	cu.m	450	46.67	21.49	21,002	9,671
/ 09	Form, type F1, for Item Nos. 4.5/06 and 4.5/07	sq.m	5,604	1.99	7.08	11,152	39,676
/ 10	Form, type F2, for Item Nos. 4.5/06 to 4.5/08	sq.m	828	2.54	8.75	2,103	7,245
/ 11	Reinforcing bars, for Item Nos. 4.5/06 and 4.5/07	kg	1,000	0.44	0.16	440	160
/ 12	Precast concrete drain block, type 5a	nos.	0	6.40	3.40	0	0
/ 13	Precast concrete side ditch, 300 x 300 mm	lin.m	2,578	12.20	6.40	31,452	16,499
/ 14	Embankment and sub-grade	cu.m	4,071	3.53	2.34	14,371	9,526
/ 15	Sub-base course	cu.m	1,369	6.30	2.80	8,625	3,833
/ 16	Base course	cu.m	1,028	9.60	4.00	9,869	4,112
/ 17	Asphalt pavement	cu.m	345	71.10	48.60	24,530	16,767
/ 18	Guardrail, concrete post	lin.m	32	3.09	2.07	99	66
	Sub-total of Item No. 4.5					240,006	173,085
	<b>TOTAL OF ITEM NO. 4</b>					<b>517,392</b>	<b>279,167</b>

**BILL OF QUANTITIES FOR PACKAGE 3, GEDE/BOR (12/12)**

Item No.	Description	Unit	Quantity	Unit Price (US\$)		Amount (US\$)	
				F.C.	L.C.	F.C.	L.C.
<b>SUMMARY OF AMOUNT</b>							
No. 0	GENERAL ITEM					61,841	63,502
No. 1	RELOCATION/RECONSTRUCTION OF PUBLIC UTILITIES				0	382,402	192,660
No. 2	DRAINAGE CHANNEL					77,787	246,588
No. 3	DRAINAGE FACILITIES					517,392	33,789
No. 4	BRIDGE AND ROAD					1,039,422	279,167
<b>TOTAL OF CONSTRUCTION COST</b>						<b>1,855,128</b>	<b>815,706</b>
<b>EQUIVALENT TO (US\$)</b>							