

TABLE PHASE 1 DISTRIBUTION PIPELINE (MAIN)

MAIN PIPELINE	DIA.	NO.	UNIT	UNIT C.	AMOUNT
PIPE LAYING	100	8,950	M	870	7,786,500
	150	10,390	M	1,430	14,857,700
	200	3,500	M	2,500	8,750,000
	250	2,190	M	3,760	8,234,400
	300	1,600	M	2,870	4,592,000
	350	740	M	3,340	2,471,600
	400	390	M	3,750	1,462,500
	500	370	M	4,460	1,650,200
	600	900	M	6,540	5,886,000
SUB TOTAL					55,690,900
GATE VALVES	100	9	SETS	13,400	120,600
	150	10	SETS	20,600	206,000
	200	4	SETS	29,400	117,600
	250	2	SETS	43,200	86,400
	300	2	SETS	54,300	108,600
	350	1	SETS	72,500	72,500
	400	1	SETS	117,000	117,000
	500	1	SETS	184,900	184,900
600	1	SETS	399,600	399,600	
SUB TOTAL					1,413,200
AIR RELIEF VALVES	25	27	SETS	30,100	812,700
	75	2	SETS	45,800	91,600
SUB TOTAL					904,300
DRAIN VALVES	100	27	SETS	28,000	756,000
	150	2	SETS	46,500	93,000
SUB TOTAL					849,000
PRESSURE REDUCTION VALVES	150	1	SETS	163,300	163,300
	250	1	SETS	392,500	392,500
SUB TOTAL					555,800
FIRE HYDRANT	100	145	SETS	21,700	3,146,500
SUB TOTAL					3,146,500
MAIN PIPELINE	SUB TOTAL				62,559,700
MISCELLANEOUS WORK				10%	6,255,970
MAIN PIPELINE	TOTAL				68,815,670

TABLE PHASE 1 DISTRIBUTION PIPELINE (INTERNAL)

BRANCH LINE	DIA.	NO.	UNIT	UNIT C.	AMOUNT
PIPE LAYING	75	14,515	M	570	8,273,550
	100	14,515	M	870	12,628,050
	SUB TOTAL				20,901,600
GATE VALVES	75	29	SETS	10,700	310,621
	100	29	SETS	13,400	389,002
	SUB TOTAL				699,623
BRANCH LINE	SUB TOTAL				21,601,223
MISCELLANEOUS WORK				10%	2,160,122
BRANCH LINE	TOTAL				23,761,345

TABLE D.8 REPLACEMENT OF HOUSE SERVICE CONNECTION

	DIA.	NO.	UNIT	UNIT C.	AMOUNT
H.S.C. L=5M CONCRETE	25	3,535	SETS	1,895	6,698,825
W/METER	32	203	SETS	2,590	525,770
H.S.C REPLACEMENT	TOTAL				7,224,595

TABLE D.9 INSTALLATION OF HOUSE SERVICE CONNECTION

	DIA.	NO.	UNIT	UNIT C.	AMOUNT
H.S.C. L=5M CONCRETE	25	13,016	SETS	3,790	49,330,640
W/METER	32	389	SETS	5,180	2,015,020
H.S.C REPLACEMENT	TOTAL				51,345,660

TABLE

PROJECT COST FOR PHASE 2

(in Thousand Pesos)

Construction Cost		
1. Transmission Pipeline		95,862
2. Booster Pumping Station No.1		
Civil and Arch. Work	7,652	
Mechanical Work	14,492	
Electrical Work	19,020	
	Sub Total	41,164
3. Booster Pumping Station No.2		
Civil and Arch. Work	6,583	
Mechanical Work	18,620	
Electrical Work	22,848	
	Sub Total	48,051
4. Distribution Reservoir No.1		
Civil and Arch. Work	11,412	
Mechanical Work	3,795	
	Sub Total	15,207
5. Distribution Reservoir No.2		
Civil and Arch. Work	3,494	
Mechanical Work	1,168	
	Sub Total	4,662
6. Booster Pumping Station No.3		
Pump House	826	
Mech. and Elec. Work	273	
	Sub Total	1,099
7. Booster Pumping Station No.4		
Pump House	560	
Mech. and Elec. Work	190	
	Sub Total	750
8. Distribution System		
Distribution Main	88,168	
Inner Network	25,603	
Fire Hydrant	2,005	
Service Connection	45,192	
	Sub Total	160,968
Construction Cost Total		367,763
Engineering Cost	(D/D 8%, C/S 4%)	44,132
Land Acquisition	(Reservoir 1 & 2)	1,760
Total		413,655
Physical Contingency	10%	41,365
GRAND TOTAL		455,020

TABLE PHASE 2 TRANSMISSION PIPELINE

TRANSMISSION LINE	DIA.	NO.	UNIT	UNIT C.	AMOUNT
PIPE LAYING	600	12,650	M	6,540	82,731,000
	150	450	M	4,040	1,818,000
	SUB TOTAL				84,549,000
GATE VALVES	600	1	SET	399,600	399,600
	150	1	SET	20,600	20,600
	SUB TOTAL				420,200
AIR RELIEF VALVES	75	12	SETS	45,800	549,600
	25	1	SET	30,100	30,100
	SUB TOTAL				579,700
DRAIN VALVES	150	3	SETS	46,500	139,500
	100	1	SETS	28,000	28,000
	SUB TOTAL				167,500
PIPE BRIDGE	600	3	LOT	477,000	1,431,000
	SUB TOTAL				1,431,000
SUB TOTAL					87,147,400
MISCELLANEOUS WORKS			10%		8,714,740
TOTAL					95,862,140

TABLE PHASE 2 BOOSTER PUMPING STATION NO.1

B.P.S NO.1 PHASE 2		NO.	UNIT	UNIT C.	AMOUNT
EXCAVATION	MACHINE	4,600	m3	17.25	79,350
	MANUAL	150	m3	65.00	9,750
BACKFILLING	MACHINE	2,030	m3	22.45	45,574
	MANUAL	70	m3	22.45	1,572
SOIL DISPOSAL	OUT OF SITE	2,675	m3	25.00	66,875
CONCRETE	DEMOLISHING	25	m3	400.00	10,000
CONCRETING	240kg/cm2	910	m3	1,724.00	1,568,840
	120kg/cm2	40	m3	1,187.00	47,480
FORMWORK	TIMBER	1,420	m2	409.50	581,490
SCAFFOLDING		2,500	m3	15.00	37,500
RE-BAR	DEFORMED	72,800	kg	25.00	1,820,000
FOUNDATION	CRASHER RUN	80	m3	360.00	28,800
DRAINAGE	POWER COST	1	lot		150,000
PILING	PC PILE 10M	103	SETS	6,000.00	618,000
WATER PROOF	ASPHALT ROOFING	392	m2	90.00	35,280
	COVERING CONCRETE	39	m3	1,187.00	46,293
PAINTING	OUTSIDE	420	m2	60.00	25,200
	C.ROOM INSIDE	228	m2	40.00	9,120
	PUMP WELL	638	m2	235.00	149,930
SASH & FIXTURE		1	lot		150,000
SUB TOTAL					5,481,053
MISCELLANEOUS WORK				10%	548,105
BUILDING TOTAL					6,029,158
FENCE REPAIR	1.5mH x 120mL	120	m	770.21	92,425
B.P.S. TOTAL					6,121,584
OVERHEAD OF CONTRACTOR				x 0.25	1,530,396
GRAND TOTAL					7,651,979
					SAY 7,652,000

Mech. & Elec. Equipment		NO.	UNIT	UNIT C.	AMOUNT
MECHANICAL EQUIPMENT		1	lot		9,058,000
INSTALLATION w/materials		1	lot	60%	5,434,800
ELECTRICAL EQUIPMENT		1	lot		11,888,000
INSTALLATION w/materials		1	lot	60%	7,132,800
SUB TOTAL					33,513,600
(Overhead is already included in above)					33,513,600
Mech. & Elec. Equipment		TOTAL		SAY	33,514,000
B.P.S NO.1 PHASE 2 GRAND TOTAL					41,166,000

TABLE PHASE 2 BOOSTER PUMPING STATION NO.2

B.P.S NO.2 PHASE 2		NO.	UNIT	UNIT C.	AMOUNT
EXCAVATION	MACHINE	4,600	m3	17.25	79,350
	MANUAL	150	m3	65.00	9,750
BACKFILLING	MACHINE	2,030	m3	22.45	45,574
	MANUAL	70	m3	22.45	1,572
SOIL DISPOSAL OUT OF SITE		2,675	m3	25.00	66,875
CONCRETE DEMOLISHING		25	m3	400.00	10,000
CONCRETING	240kg/cm2	910	m3	1,724.00	1,568,840
	120kg/cm2	40	m3	1,187.00	47,480
FORMWORK	TIMBER	1,420	m2	409.50	581,490
SCAFFOLDING		2,500	m3	15.00	37,500
RE-BAR	DEFORMED	72,800	kg	25.00	1,820,000
FOUNDATION	CRASHER RUN	80	m3	360.00	28,800
WATER PROOF	ASPHALT ROOFING	392	m2	90.00	35,280
	COVERING CONCRETE	39	m3	1,187.00	46,293
PAINTING	OUTSIDE	265	m2	60.00	15,900
	C.ROOM INSIDE	228	m2	40.00	9,120
	PUMP WELL	638	m2	235.00	149,930
SASH & FIXTURE		1	lot		150,000
SUB TOTAL					4,703,753
MISCELLANEOUS WORK				10%	470,375
BUILDING TOTAL					5,174,128
FENCE REPAIR	1.5mH x 120mL	120	m	770.21	92,425
B.P.S. TOTAL					5,266,554
OVERHEAD OF CONTRACTOR				x 0.25	1,316,638
GRAND TOTAL					6,583,192
					SAY 6,583,000

Mech. & Elec. Equipment		NO.	UNIT	UNIT C.	AMOUNT
MECHANICAL EQUIPMENT		1	lot		11,638,000
INSTALLATION w/materials		1	lot	60%	6,982,800
ELECTRICAL EQUIPMENT		1	lot		14,280,000
INSTALLATION w/materials		1	lot	60%	8,568,000
SUB TOTAL					41,468,800
(Overhead is already included in above)					41,468,800
Mech. & Elec. Equipment		TOTAL		SAY	41,469,000

B.P.S NO.2 PHASE 2		GRAND TOTAL			48,052,000
=====					

TABLE PHASE 2 DISTRIBUTION RESERVOIR (MAIN)

DIST. RESERVOIR (MAIN) PHASE 2		NO.	UNIT	UNIT C.	AMOUNT
EXCAVATION	MACHINE	5,985	m3	17.25	103,241
	MANUAL	288	m3	65.00	18,720
BACKFILLING	MACHINE	1,995	m3	22.45	44,788
	MANUAL	131	m3	22.45	2,941
SOIL DISPOSAL	OUT OF SITE	4,147	m3	25.00	103,675
CONCRETING	240kg/cm2	1,314	m3	1,724.00	2,265,336
	120kg/cm2	82	m3	1,187.00	97,334
FORMWORK	TIMBER	3,568	m2	409.50	1,461,096
SCAFFOLDING		3,715	m3	15.00	55,725
RE-BAR	DEFORMED	118,260	kg	25.00	2,956,500
FOUNDATION	CRASHER RUN	165	m3	360.00	59,400
WATER PROOF	ASPHALT ROOFING	724	m2	90.00	65,160
	COVERING CONCRETE	73	m3	1,187.00	86,651
PAINTING	INSIDE	3,450	m2	235.00	810,750
SUB TOTAL					8,131,317
MISCELLANEOUS WORK				10%	813,132
MAIN BODY TOTAL					8,944,449
FENCE	1.5mH x 160mL	188	m	770.21	144,799
GATE		1	lot		40,000
B.P.S. TOTAL					9,129,248
OVERHEAD OF CONTRACTOR				x 0.25	2,282,312
GRAND TOTAL					11,411,560
					SAY 11,412,000
PIPE FITTINGS		NO.	UNIT	UNIT C.	AMOUNT
GATE VALVES	INFLOW 450mm	2	SETS	147,700	295,400
	OUTFLOW 500mm	2	SETS	184,900	369,800
DRAIN VALVES	300mm	2	SETS	54,300	108,600
BYPASS VALVES	600mm	1	SET	399,600	399,600
BYPASS PIPE	DRAIN VALVE 150mm	1	SET	20,600	20,600
FLEX. JOINT	INFLOW 450mm	2	SETS	156,400	312,800
	OUTFLOW 500mm	2	SETS	177,800	355,600
	DRAIN 300mm	2	SETS	104,300	208,600
	OVERFLOW 350mm	2	SETS	119,600	239,200
FLOW METER	INFLOW 600mm	1	SET	271,000	271,000
	OUTFLOW 700mm	1	SET	293,400	293,400
PIPING	INFLOW 600mm	24	m	6,540	156,960
	INFLOW 450mm	6	m	4,040	24,240
	OUTFLOW 500mm	6	m	4,460	26,760
	OUTFLOW 700mm	23	m	8,820	202,860
	BYPASS 600mm	34	m	6,540	222,360
	DRAIN 300mm	100	m	2,870	287,000
SUB TOTAL					3,794,780
OVERHEAD OF CONTRACTOR				INCLUDED IN ABOVE	0
PIPING TOTAL					3,794,780
					SAY 3,795,000
DIST. RESERVOIR (MAIN) PHASE 2 TOTAL					15,207,000

TABLE PHASE 2 DISTRIBUTION RESERVOIR (SUB)

DIST. RESERVOIR (SUB) PHASE 2		NO.	UNIT	UNIT C.	AMOUNT
EXCAVATION	MACHINE	2,034	m3	17.25	35,087
	MANUAL	90	m3	65.00	5,850
BACKFILLING	MACHINE	1,120	m3	22.45	25,144
	MANUAL	75	m3	22.45	1,684
SOIL DISPOSAL	OUT OF SITE	929	m3	25.00	23,225
CONCRETING	240kg/cm2	399	m3	1,724.00	687,876
	120kg/cm2	21	m3	1,187.00	24,927
FORMWORK	TIMBER	1,079	m2	409.50	441,851
SCAFFOLDING		762	m3	15.00	11,430
RE-BAR	DEFORMED	35,910	kg	25.00	897,750
FOUNDATION	CRASHER RUN	42	m3	360.00	15,120
WATER PROOF	ASPHALT ROOFING	187	m2	90.00	16,830
	COVERING CONCRETE	19	m3	1,187.00	22,553
PAINTING	INSIDE	780	m2	235.00	183,300
SUB TOTAL					2,392,626
MISCELLANEOUS WORK				10%	239,263
MAIN BODY TOTAL					2,631,888
FENCE	1.5mH x 138mL	160	m	770.21	123,234
GATE		1	lot		40,000
B.P.S. TOTAL					2,795,122
OVERHEAD OF CONTRACTER				x 0.25	698,780
GRAND TOTAL					3,493,902
					SAY 3,494,000
PIPE FITTINGS		NO.	UNIT	UNIT C.	AMOUNT
GATE VALVES	INFLOW 150mm	2	SETS	20,600	41,200
	OUTFLOW 200mm	2	SETS	29,400	58,800
DRAIN VALVES	100mm	2	SETS	13,400	26,800
	150mm	2	SETS	20,600	41,200
BYPASS PIPE	DRAIN VALVE 75mm	1	SET	10,700	10,700
FLEX. JOINT	INFLOW 150mm	2	SETS	73,200	146,400
	OUTFLOW 200mm	2	SETS	79,100	158,200
	DRAIN 100mm	2	SETS	59,500	119,000
	OVERFLOW 150mm	2	SETS	73,200	146,400
FLOW METER	INFLOW 150mm	1	SET	81,800	81,800
	OUTFLOW 200mm	1	SET	88,800	88,800
PIPING	INFLOW 150mm	26	m	1,430	37,180
	OUTFLOW 200mm	26	m	2,500	65,000
	BYPASS 150mm	15	m	1,430	21,450
	DRAIN 200mm	50	m	2,500	125,000
SUB TOTAL					1,167,930
OVERHEAD OF CONTRACTER				INCLUDED IN ABOVE	0
GRAND TOTAL					1,167,930
					SAY 1,168,000
DIST. RESERVOIR (SUB) PHASE 2 TOTAL					4,662,000

TABLE PHASE 2 DISTRIBUTION PIPELINE

MAIN PIPELINE	DIA.	NO.	UNIT	UNIT C.	AMOUNT
PIPE LAYING	100	4,410	M	870	3,836,700
	150	9,860	M	1,430	14,099,800
	200	7,800	M	2,500	19,500,000
	250	4,540	M	3,760	17,070,400
	300	1,310	M	2,870	3,759,700
	350	180	M	3,340	601,200
	400	430	M	3,750	1,612,500
	450	1,090	M	4,040	4,403,600
	500	760	M	4,460	3,389,600
	700	900	M	8,820	7,938,000
	SUB TOTAL				76,211,500
GATE VALVES	100	4	SETS	13,400	53,600
	150	10	SETS	20,600	206,000
	200	8	SETS	29,400	235,200
	250	5	SETS	43,200	216,000
	300	1	SETS	54,300	54,300
	350	1	SETS	72,500	72,500
	400	1	SETS	117,000	117,000
	450	1	SETS	147,700	147,700
	500	1	SETS	184,900	184,900
	700	1	SETS	506,300	506,300
	SUB TOTAL				1,793,500
AIR RELIEF VALVES	25	28	SETS	30,100	842,800
	75	3	SETS	45,800	137,400
	SUB TOTAL				980,200
DRAIN VALVES	100	28	SETS	28,000	784,000
	150	3	SETS	46,500	139,500
	SUB TOTAL				923,500
PRESSURE REDUCTION VALVES	100	1	SETS	80,500	80,500
	150	1	SETS	163,300	163,300
	SUB TOTAL				243,800
FIRE HYDRANT	100	84	SETS	21,700	1,822,800
	SUB TOTAL				1,822,800
MAIN PIPELINE	SUB TOTAL				81,975,300
MISCELLANEOUS WORK					10% 8,197,530
MAIN PIPELINE	TOTAL				90,172,830

TABLE PHASE 2 BOOSTER PUMPING STATION NO.3

Civil & Arch.		NO.	UNIT	UNIT C.	AMOUNT
PUMP HOUSE		30	m2	19,090	572,700
SUB TOTAL					572,700
MISCELLANEOUS WORK				10%	57,270
PUMP HOUSE		TOTAL			629,970
FENCE	1.5mH x 34mL	40	m	770.21	30,808
GATE		1	lot		40,000
TOTAL					660,778
OVERHEAD OF CONTRACTER				x 0.25	165,195
Civil & Arch. GRAND TOTAL				SAY	825,973
					826,000
Mech. & Elec. Equipment		NO.	UNIT	UNIT C.	AMOUNT
PUMPS	80x65x0.9m3/m.x10m	2	units	56,000	112,000
GATE VALVES	100mm	4	SETS	6,500	26,000
CHECK VALVES	100mm	2	SETS	6,100	12,200
PRESSURE METER		2	SETS	1,000	2,000
PLUMBING	w/materials	1	lot		50,000
CONTROL PANEL	w/installation work	1	lot		46,000
SUB TOTAL					248,200
MISCELLANEOUS WORK				10%	24,820
(Overhead is already included in above)					273,020
Mech. & Elec. Equipment		TOTAL		SAY	273,000
B.P.S NO.3 PHASE 2		GRAND TOTAL			1,099,000

TABLE PHASE 2 BOOSTER PUMPING STATION NO.4

Civil & Arch.	NO.	UNIT	UNIT C.	AMOUNT
PUMP HOUSE	20	m2	19,090	381,800
SUB TOTAL				381,800
MISCELLANEOUS WORK			10%	38,180
PUMP HOUSE	TOTAL			419,980
FENCE	36	m	770.21	27,728
GATE	1	lot		40,000
B.P.S.	TOTAL			447,708
OVERHEAD OF CONTRACTOR			x 0.25	111,927
Civil & Arch.	GRAND TOTAL			559,634
			SAY	560,000

Mech. & Elec. Equipment	NO.	UNIT	UNIT C.	AMOUNT
PUMPS	2	units	27,100	54,200
GATE VALVES	4	SETS	6,500	26,000
CHECK VALVES	2	SETS	6,100	12,200
PRESSURE METER	2	SETS	1,000	2,000
PLUMBING	1	lot		40,000
CONTROL PANEL	1	lot		38,000
				w/materials
				w/installation work
SUB TOTAL				172,400
MISCELLANEOUS WORK			10%	17,240
(Overhead is already included in above)				189,640
Mech. & Elec. Equipment	TOTAL		SAY	190,000

B.P.S NO.4 PHASE 2 GRAND TOTAL 750,000

=====

TABLE PHASE 2 DISTRIBUTION PIPELINE (INTERNAL)

BRANCH LINE	DIA.	NO.	UNIT	UNIT C.	AMOUNT
PIPE LAYING	75	15,640	M	570	8,914,800
	100	15,640	M	870	13,606,800
SUB TOTAL					22,521,600
GATE VALVES	75	31	SETS	10,700	334,696
	100	31	SETS	13,400	419,152
SUB TOTAL					753,848
BRANCH LINE	SUB TOTAL				23,275,448
MISCELLANEOUS WORK				10%	2,327,545
BRANCH LINE	TOTAL				25,602,993

TABLE INSTALLATION OF HOUSE SERVICE CONNECTION

	DIA.	NO.	UNIT	UNIT C.	AMOUNT
H.S.C. L=5M CONCRETE	25	11,368	SETS	3,790	43,084,720
W/METER	32	407	SETS	5,180	2,108,260
H.S.C REPLACEMENT	TOTAL				45,192,980

TABLE ELEVATED WATER TANK

		NO.	UNIT	UNIT C.	AMOUNT
EXCAVATION	MACHINE	655	m3	17.25	11,299
	MANUAL	47	m3	65.00	3,055
BACKFILLING	MACHINE	388	m3	22.45	8,711
SOIL DISPOSAL	OUT OF SITE	314	m3	25.00	7,850
CONCRETING	240kg/cm2	557	m3	1,724.00	960,268
	120kg/cm2	7	m3	1,187.00	8,309
FORMWORK	TIMBER	942	m2	409.50	385,749
SCAFFOLDING		2,080	m3	15.00	31,200
RE-BAR	DEFORMED	50,107	kg	25.00	1,252,675
FOUNDATION	CRASHER RUN	22	m3	360.00	7,920
INSIDE COATING	EPOXY RESIN	402	m2	235.00	94,470
SUB TOTAL					2,771,505
MISCELLANEOUS WORK				10%	277,151
ELEV. W. TANK TOTAL					3,048,656
FENCE	1.5mH x 80mL	88	m	770.21	67,778
GATE		1	lot		10,000
TOTAL					3,126,434
OVERHEAD OF CONTRACTOR				x 0.25	781,609
GRAND TOTAL					3,908,043
					SAY 3,908,000

JICA