APPENDIX E-5

Construction Cost with applying the unit price for each contractors

Construction Cost with applying the unit price for each contractors (1/2)

Exchange Rate	
	1USD= 113.34 (YEN)
	1EUR= 121.26 (YEN)
	1LE= 6.49 (YEN)

Construction Cost			Unit	Quantity	1. Canal harbor and great project company				2. SAMCRETE Engineers & Contractors				3. UNION SEVEN, SAE			
					US$	LE	YEN	Total (Exchange to "YEN")	US$	LE	YEN	Total (Exchange to "YEN")	US$	LE	YEN	Total (Exchange to "YEN")
I-1 Direct Cost	A. Civil Works	A-1. Excavation	L.S	1.0		3,882,675		25,198,000		6,160,402		39,981,000		2,983,318		19,361,000
		A-2. Embankment	L.S	1.0		19,380,097		125,776,000		24,745,287		160,596,000		12,339,321		80,082,000
		A-3. Demolition work	L.S	1.0		115,410		749,000		156,407		1,015,000		90,550		587,000
		A-4. Sheet pile bank protection	L.S	1.0	636,160	4,478,828	6,996,465	108,166,000	636,160	6,822,308	6,996,465	123,375,000	636,160	5,016,901	6,996,465	111,658,000
		A-5. Rip rap bank protection	L.S	1.0		3,624,529	10,700,560	34,223,000		6,713,458	10,700,560	54,270,000		4,652,047	10,700,560	40,892,000
		A-6. Canal bed protection	L.S	1.0	196,051	2,152,619		36,190,000	196,051	3,648,944		45,902,000	196,051	1,866,835		34,336,000
		A-7. Concrete work for regulators	L.S	1.0		37,649,805	686,206	245,033,000		56,450,158	686,206	367,047,000		42,316,593	686,206	275,320,000
		A-8. Pile foundation work	L.S	1.0		12,279,780		79,695,000		14,925,875		96,868,000		13,202,064		85,681,000
		A-9. Accessory works	L.S	1.0		16,271,453	17,569,265	123,170,000		23,456,417	17,569,265	169,801,000		18,579,854	17,569,265	138,152,000
		A-10. Electric works	L.S	1.0		3,063,072	8,650,000	28,529,000		4,024,093	8,650,000	34,766,000		3,886,424	8,650,000	33,872,000
		A-11. Gate manufactures and works	L.S	1.0		17,135,038	1,672,334,600	1,783,540,000		21,753,385	1,672,334,600	1,813,514,000		18,440,254	1,672,334,600	1,792,011,000
		A-12. Expense of the machine and facilities	L.S	1.0	221,310	23,557,993	53,661,990	231,636,000	221,310	27,297,429	53,661,990	255,905,000	221,310	20,782,687	53,661,990	213,624,000
		sub total (Civil works)			1,053,520	143,591,299	1,770,599,086	2,821,912,000	1,053,520	196,154,164	1,770,599,086	3,163,045,000	1,053,520	144,156,846	1,770,599,086	2,825,583,000
	B. Temporary works	B-1. Temporary Coffer Dam	L.S	1.0	840,284	17,091,686	110,691,135	316,854,000	840,284	26,298,652	110,691,135	376,607,000	840,284	14,254,270	110,691,135	298,439,000
		B-2. Single Sheet Pile	L.S	1.0	438,170	2,214,558	6,347,427	70,382,000	438,170	4,232,231	6,347,427	83,476,000	438,170	2,041,534	6,347,427	69,259,000
		B-3. Temporary bridge	L.S	1.0		4,508,147	53,423,642	82,681,000		7,163,037	53,423,642	99,911,000		3,257,379	53,423,642	74,564,000
		B-4. Dewatering	L.S	1.0		10,031,694		65,105,000		11,593,759		75,243,000		9,863,770		64,015,000
		B-5. Temporary road & preparation	L.S	1.0		7,901,038		51,277,000		9,909,517		64,312,000		5,188,326		33,672,000
		B-6. diversion works	L.S	1.0		11,244,801		72,978,000		13,205,441		85,703,000		10,489,883		68,079,000
		B-7. Other temporary works	L.S	1.0		18,836,887	17,112,000	139,363,000		23,255,769	17,112,000	168,041,000		13,995,481	17,112,000	107,942,000
		B-8. Transpotation / Shipment	L.S	1.0	1,913,685	13,325,895	75,194,993	378,577,000	1,913,685	10,706,529	75,203,720	361,586,000	1,913,685	18,428,520	75,199,266	411,697,000
		sub total (Temporary works)			3,192,139	85,154,707	262,769,197	1,177,220,000	3,192,139	106,364,936	262,777,924	1,314,883,000	3,192,139	77,519,164	262,773,470	1,127,669,000
	C. Building works	C-1. Control house	L.S	1.0		1,977,700		12,835,000		1,977,700		12,835,000		1,977,700		12,835,000
		C-2. Local contrl house	L.S	1.0		301,900		1,959,000		301,900		1,959,000		301,900		1,959,000
		C-3. Local contrl house	L.S	1.0		301,900		1,959,000		301,900		1,959,000		301,900		1,959,000
		C-4. Stop log room	L.S	1.0		818,200		5,310,000		818,200		5,310,000		818,200		5,310,000
		sub total (Building works)				3,399,700		22,064,000		3,399,700		22,064,000		3,399,700		22,064,000
	D. Integrated Water Management System	D-1. IWMS manufactures	L.S	1.0		15,676,546		101,740,000		15,676,546		101,740,000		15,676,546		101,740,000
		D-2. Installation for IWMS	L.S	1.0		15,951,898		103,527,000		15,951,898		103,527,000		15,951,898		103,527,000
		sub total (Integrated Water Management System)				31,628,444		205,268,000		31,628,444		205,268,000		31,628,444		205,268,000
	E. Dispute Board	E-1. Dispute Board	L.S	1.0	407,000			46,129,000	407,000			46,129,000	407,000			46,129,000
		sub total (Dispute Board)			407,000			46,129,000	407,000			46,129,000	407,000			46,129,000
					4,652,660	263,774,149	2,033,368,283	4,272,594,000	4,652,660	337,547,244	2,033,377,010	4,751,391,000	4,652,660	256,704,153	2,033,372,556	4,226,714,000
I-2 Indirect Cost					1,485,994	85,599,656	186,285,715	910,250,000	1,485,994	111,307,823	186,288,770	1,077,099,000	1,485,994	84,267,303	186,287,212	901,604,000
Total					6,138,654	349,373,805	2,219,653,998	**5,182,845,000**	6,138,654	448,855,067	2,219,665,780	**5,828,490,000**	6,138,654	340,971,456	2,219,659,768	**5,128,320,000**
					13.4%	43.7%	42.9%		11.9%	50.0%	38.1%		13.6%	43.2%	43.2%	

Construction Cost with applying the unit price for each contractors (2/2)

Exchange Rate	
	1USD= 113.34 (YEN)
	1EUR= 121.26 (YEN)
	1LE= 6.49 (YEN)

Construction Cost			Unit	Quantity	4. The Egyptian Office For Contracting (ECO)				5. ORASCOM CONSTRUCTION				(6. Average from 1. to 4.)			
					US$	LE	YEN	Total (Exchange to "YEN")	US$	LE	YEN	Total (Exchange to "YEN")	US$	LE	YEN	Total (Exchange to "YEN")
I-1 Direct Cost	A. Civil Works	A-1. Excavation	L.S	1.0		4,314,969		28,004,000		5,941,020		38,557,000		4,438,017		28,802,000
		A-2. Embankment	L.S	1.0		17,829,952		115,716,000		22,808,573		148,027,000		18,815,689		122,113,000
		A-3. Demolition work	L.S	1.0		164,789		1,069,000		137,868		894,000		131,997		856,000
		A-4. Sheet pile bank protection	L.S	1.0	636,160	5,263,026	6,996,465	113,255,000	636,160	5,786,213	6,996,465	116,651,000	636,160	5,394,081	6,996,465	114,106,000
		A-5. Rip rap bank protection	L.S	1.0		4,970,969	10,700,560	42,962,000		6,290,243	10,700,560	51,524,000		5,023,275	10,700,560	43,301,000
		A-6. Canal bed protection	L.S	1.0	196,051	2,779,667		40,260,000	196,051	3,088,288		42,263,000	196,051	2,641,631		39,364,000
		A-7. Concrete work for regulators	L.S	1.0		42,463,927	686,206	276,277,000		54,119,226	686,206	351,919,000		44,873,250	686,206	291,913,000
		A-8. Pile foundation work	L.S	1.0		13,057,184		84,741,000		15,352,634		99,638,000		13,382,883		86,854,000
		A-9. Accessory works	L.S	1.0		19,359,973	17,569,265	143,215,000		23,171,993	17,569,265	167,955,000		19,516,171	17,569,265	144,229,000
		A-10. Electric works	L.S	1.0		3,539,442	8,650,000	31,620,000		3,766,860	8,650,000	33,096,000		3,626,535	8,650,000	32,186,000
		A-11. Gate manufactures and works	L.S	1.0		19,024,563	1,672,334,600	1,795,804,000		19,247,838	1,672,334,600	1,797,253,000		19,081,523	1,672,334,600	1,796,173,000
		A-12. Expense of the machine and facilities	L.S	1.0	221,310	24,007,302	53,661,990	234,552,000	221,310	26,199,550	53,661,990	248,780,000	221,310	23,815,178	53,661,990	233,305,000
		sub total (Civil works)			1,053,520	156,775,761	1,770,599,086	2,907,479,000	1,053,520	185,910,308	1,770,599,086	3,096,562,000	1,053,520	160,740,229	1,770,599,086	2,933,209,000
	B. Temporary works	B-1. Temporary Coffer Dam	L.S	1.0	840,284	18,265,116	110,691,135	324,469,000	840,284	21,027,421	110,691,135	342,396,000	840,284	19,099,570	110,691,135	329,885,000
		B-2. Single Sheet Pile	L.S	1.0	438,170	2,721,320	6,347,427	73,671,000	438,170	2,733,442	6,347,427	73,749,000	438,170	2,790,300	6,347,427	74,118,000
		B-3. Temporary bridge	L.S	1.0		5,014,025	53,423,642	85,964,000		5,216,082	53,423,642	87,276,000		4,976,787	53,423,642	85,722,000
		B-4. Dewatering	L.S	1.0		10,700,840		69,448,000		10,517,748		68,260,000		10,519,709		68,272,000
		B-5. Temporary road & preparation	L.S	1.0		7,717,994		50,089,000		9,319,421		60,483,000		7,783,261		50,513,000
		B-6. diversion works	L.S	1.0		11,809,523		76,643,000		12,689,336		82,353,000		11,759,641		76,320,000
		B-7. Other temporary works	L.S	1.0		16,286,601	17,112,000	122,812,000		18,795,424	17,112,000	139,094,000		18,178,115	17,112,000	135,087,000
		B-8. Transpotation / Shipment	L.S	1.0	1,913,685	10,817,689	75,198,254	362,302,000	1,913,685	11,600,564	75,198,984	367,383,000	1,913,685	13,325,895	75,199,059	378,581,000
		sub total (Temporary works)			3,192,139	83,333,108	262,772,458	1,165,401,000	3,192,139	91,899,439	262,773,188	1,220,997,000	3,192,139	88,433,278	262,773,263	1,198,502,000
	C. Building works	C-1. Control house	L.S	1.0		1,977,700		12,835,000		1,977,700		12,835,000		1,977,700		12,835,000
		C-2. Local contrl house	L.S	1.0		301,900		1,959,000		301,900		1,959,000		301,900		1,959,000
		C-3. Local contrl house	L.S	1.0		301,900		1,959,000		301,900		1,959,000		301,900		1,959,000
		C-4. Stop log room	L.S	1.0		818,200		5,310,000		818,200		5,310,000		818,200		5,310,000
		sub total (Building works)				3,399,700		22,064,000		3,399,700		22,064,000		3,399,700		22,064,000
	D. Integrated Water Management System	D-1. IWMS manufactures	L.S	1.0		15,676,546		101,740,000		15,676,546		101,740,000		15,676,546		101,740,000
		D-2. Installation for IWMS	L.S	1.0		15,951,898		103,527,000		15,951,898		103,527,000		15,951,898		103,527,000
		sub total (Integrated Water Management System)				31,628,444		205,268,000		31,628,444		205,268,000		31,628,444		205,268,000
	E. Dispute Board	E-1. Dispute Board	L.S	1.0	407,000			46,129,000	407,000			46,129,000	407,000			46,129,000
		sub total (Dispute Board)			407,000			46,129,000	407,000			46,129,000	407,000			46,129,000
					4,652,660	275,137,013	2,033,371,544	4,346,343,000	4,652,660	312,837,890	2,033,372,274	4,591,022,000	4,652,660	284,201,651	2,033,372,349	4,405,173,000
I-2 Indirect Cost					1,485,994	90,657,085	186,286,857	943,073,000	1,485,994	103,849,443	186,287,113	1,028,692,000	1,485,994	93,278,928	186,287,138	960,089,000
Total					6,138,654	365,794,098	2,219,658,401	**5,289,417,000**	6,138,654	416,687,333	2,219,659,387	**5,619,715,000**	6,138,654	377,480,579	2,219,659,487	**5,365,263,000**
					13.2%	44.9%	41.9%		12.4%	48.1%	39.5%		13.0%	45.7%	41.3%	

APPENDIX E-6

Comparison Table of the unit price

A. Personnel Fee (Local)

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
A-01	Civil engineer	20 years experience	Month	30,000	51,800	48,900	36,000	78,587	41,675	49,057
A-02	Civil engineer	15 years experience	Month	20,000	38,000	41,800	27,000	55,011	31,700	36,362
A-03	Civil engineer	10 years experience	Month	15,000	25,900	34,736	18,000	47,152	23,409	28,158
A-04	Civil engineer	5 years experience	Month	10,000	17,300	24,959	13,000	25,541	16,315	18,160
A-05	Architect	20 years experience	Month	30,000	51,800	48,900	36,000	78,587	41,675	49,057
A-06	Architect	15 years experience	Month	20,000	38,000	41,800	27,000	55,011	31,700	36,362
A-07	Architect	10 years experience	Month	15,000	25,900	34,736	18,000	47,152	23,409	28,158
A-08	Architect	5 years experience	Month	10,000	17,300	24,959	13,000	25,541	16,315	18,160
A-09	Mechanical engineer	10 years experience	Month	15,000	20,700	34,736	13,000	53,046	20,859	27,296
A-10	Electrical engineer	10 years experience	Month	15,000	20,700	34,736	15,000	53,046	21,359	27,696
A-11	Surveyor		Month	15,000	13,800	17,359	9,000	19,647	13,790	14,961
A-12	Surveyor Assistant		Month	10,000	8,700	8,859	5,000	11,788	8,140	8,869
A-13	Draft man	CAD operator	Month	10,000	13,800	11,692	9,000	16,110	11,123	12,120
A-14	Administrator	10 years experience	Month	5,000	20,700	21,609	13,000	29,470	15,077	17,956
A-15	Administrative secretary		Month	4,000	13,800	8,859	7,500	23,576	8,540	11,547
A-16	Asistant administrator		Month	4,000	8,700	10,276	6,000	20,629	7,244	9,921
A-17	Office boy		Month	3,000	6,100	6,026	4,000	6,876	4,782	5,200
A-18	Driver	Dump, Cargo	Month	10,000	13,800	8,151	8,500	13,895	10,113	10,869
A-19	Security guard	Daytime	Month	3,000	6,100	3,901	4,000	6,876	4,250	4,775
A-20	Forman		Day	150	520	440	380	491	373	396
A-21	Skilled labor		Day	200	350	369	250	397	292	313
A-22	Common labor		Day	150	210	206	170	233	184	194
A-23	Rigger		Day	200	440	369	300	250	327	312
A-24	Re-bar fixer		Day	200	440	369	300	397	327	341
A-25	Operator	for construction equipment	Day	200	520	440	350	-	378	378
A-26	Carpenter		Day	200	440	369	350	397	340	351
A-27	Plasterer		Day	200	440	369	280	422	322	342
A-28	Masonry		Day	200	440	369	280	422	322	342
A-29	Painter		Day	200	440	369	280	322	322	322
A-30	Welder		Day	200	520	405	320	320	361	353
A-31	Electrician	General	Day	200	440	405	320	373	341	348
A-32	Mechanic		Day	200	440	369	320	373	332	340
A-33	Plumber		Day	200	440	369	280	373	322	332
A-34	Security		Day							
A-35	Driver	Dump, Cargo	Day	400	-	398	350	534	383	421

B. Equipment Hire

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
B-1	Backhoe	0.45m3	Day	3,921	3,910	1,000	2,100	2,581	2,733	2,702
B-2	Backhoe	0.8m3	Day	4,196	5,870	1,200	3,000	4,528	3,567	3,759
B-3	Backhoe	1.4m3	Day	2,500	7,820	1,350	4,300	7,810	3,993	4,756
B-4	Breaker	1300kg	Day	-	-	1,500	5,200	-	3,350	3,350
B-5	Truck crane	5t	Day	2,000	3,910	-	2,300	-	2,737	2,737
B-6	Truck crane	20t	Day	2,500	6,850	2,500	4,000	-	3,963	3,963
	Truck crane	25t	Day	3,000	9,780	3,000	5,000	-	5,195	5,195
B-7	Truck crane	35t	Day	5,000	11,730	3,500	6,200	-	6,608	6,608
B-8	Truck crane	50t	Day	8,000	15,640	5,000	9,000	-	9,410	9,410
	Truck crane	80t	Day	9,000	23,460	7,500	14,000	-	13,490	13,490
	Crawler crane	30 - 35t	Day	3,340	15,640	4,000	9,000	-	7,995	7,995
	Crawler crane	40 - 45t	Day	2,745	19,550	4,500	12,000	-	9,699	9,699
B-13	Crawler crane	50 - 55t	Day	-	23,460	5,000	14,000	-	14,153	14,153
	Crawler crane	80t	Day	2,668	29,330	7,500	18,000	29,989	14,375	17,497
B-17	Clamshell	0.8m3	Day	-	-	6,000	1,000	-	3,500	3,500
B-18	Rough trrain crain	20t	Day	3,000	-	2,500	3,300	-	2,933	2,933
B-19	Rough trrain crain	25t	Day	4,000	-	3,000	4,500	7,037	3,833	4,634
	Rough trrain crain	30t	Day	5,000	-	3,500	6,500	7,757	5,000	5,689
	Rough trrain crain	50t	Day	9,000	-	5,000	9,200	12,646	7,733	8,962
B-22	Bulldozer	15t	Day	4,570	9,780	2,000	4,800	8,543	5,288	5,939
B-23	Bulldozer	21t	Day	4,570	11,730	2,000	6,000	13,640	6,075	7,588
B-24	Wheel Shovel (Loader)	2.1m3	Day	-	3,910	1,200	2,200	6,096	2,437	3,352
B-25	Dump truck	4t	Day	1,200	1,960	1,000	1,000	-	1,290	1,290
B-26	Dump truck	10t	Day	1,800	3,520	1,500	2,200	3,066	2,255	2,417
B-27	Truck	4t	Day	990	1,570	750	900	949	1,053	1,032
B-28	Truck	6t	Day	1,200	2,350	1,000	1,300	2,534	1,463	1,677
B-29	Truck	11t	Day	1,700	2,940	1,500	1,500	-	1,910	1,910
B-30	Truck with crane	4t/2t	Day	-	2,940	2,000	2,000	-	2,313	2,313
B-31	Trailer	15t	Day	2,680	4,890	3,000	3,300	-	3,468	3,468
	Trailer	20t	Day	2,680	6,850	3,500	4,000	-	4,258	4,258
B-32	Trailer	30t	Day	2,680	8,800	4,000	4,300	-	4,945	4,945
B-37	Plate compactor	60-100kg	Day	1,142	590	350	300	336	596	544
B-38	Tamping rammer	60-100kg	Day	-	400	350	200	-	317	317
B-39	Vibratory roller	0.8-1.1t	Day	1,200	1,570	800	900	-	1,118	1,118
B-40	Vibratory roller	3 - 4t	Day	1,400	2,350	900	1,500	-	1,538	1,538
B-41	Vibratory roller	8 - 10t	Day	2,000	3,910	1,150	2,000	1,878	2,265	2,188

B. Equipment Hire

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
B-42	Pneumatic tire roller	8-20t	Day	2,000	3,910	2,000	2,500	2,899	2,603	2,662
B-45	Mixer truck	4.4m3	Day	3,200	1,960	-	-	-	2,580	2,580
B-46	Mixer truck	5m3	Day	3,200	2,350	2,500	2,000	2,491	2,513	2,508
B-47	Concrete batcher plant	30m3/h	Day	15,000	19,550	10,000	12,000	-	14,138	14,138
	Concrete batcher plant	45m3/h	Day	20,000	29,330	12,500	25,000	-	21,708	21,708
B-48	Cement silo	50t	Day	1,000	3,910	750	2,000	-	1,915	1,915
B-49	Concrete pump	40～75m3/h	Day	3,000	3,910	6,500	2,500	-	3,978	3,978
	Concrete pump	90～110m3/h	Day	5,000	5,870	8,000	3,000	15,025	5,468	7,379
B-50	Motorgrader	W3.2m, 120PS	Day	2,000	3,910	3,000	1,800	20,233	2,678	6,189
	Asphalt finisher	Width 1.4 - 3.0m	Day	3,000	3,910	4,000	2,500	-	3,353	3,353
B-51	Asphalt finisher	Width 2.4 - 6.0m	Day	4,000	5,870	5,000	3,800	7,213	4,668	5,177
	Road Roller	10 - 12t	Day	3,000	2,940	1,850	1,500	-	2,323	2,323
	Tire Roller	8 - 20t	Day	2,000	3,910	2,250	2,000	2,899	2,540	2,612
B-52	Welding Machine	300A	Day	500	1,960	400	1,000	231	965	818
B-53	Concrete Vibrator	D50mm	Day	100	980	150	450	275	420	391
B-54	Submersible Pump	6inch h=10m	Day	900	980	300	550	-	683	683
B-55	Submersible Pump	4inch h=15m	Day	700	1,570	275	750	-	824	824
B-56	Submersible Pump	2inch h=30m	Day	500	2,350	250	1,200	-	1,075	1,075
	Generator	300kva	Day	1,697	3,910	1,500	2,500	1,552	2,402	2,232
B-58	Generator	200kva	Day	1,356	2,940	1,100	1,700	1,115	1,774	1,642
B-59	Generator	150kva	Day	1,000	2,550	1,000	1,500	857	1,513	1,381
	Generator	100kva	Day	900	2,160	850	1,000	700	1,228	1,122
B-60	Generator	75kva	Day	900	1,960	750	900	700	1,128	1,042
	Generator	50kva	Day	900	1,760	600	800	471	1,015	906
B-61	Generator	35kva	Day	900	1,570	550	750	471	943	848
B-62	Vibrate Hummer for driving steel sheet pile	90kw	Day	5,069	-	-	-	-	5,069	5,069
B-63	Vibrate Hummer for driving steel sheet pile	60kw	Day	3,278	-	2,500	-	-	2,889	2,889
B-64	Re-bar cutter	D41	Day	200	1,570	750	800	738	830	812
B-65	Re-bar bender	D41	Day	200	1,570	750	800	903	830	845
	Water Tank Truck	10m3	Day	2,255	2,940	1,800	1,400	3,011	2,099	2,281
	Water jet	14.7MPa、325ℓ/min	Day	692	-	-	-	-	692	692
	Reverse Circulation Drill	rotary table, D3,200mm, H200m	Day	300	-	-	-	-	300	300
	Hydoraulic Press-fitting and P	4 jacks, D1,000mm	Day	300	-	-	-	-	300	300

C. Construction Material

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
C-1	Reinforcing bar	φ10	Ton	10,000	11,100	11,000	10,500	14,490	10,650	11,418
C-2	Reinforcing bar	D12 - D16	Ton	10,000	11,100	11,000	11,000	14,490	10,775	11,518
C-3	Reinforcing bar	D18- D25	Ton	10,000	11,100	11,000	11,000	14,490	10,775	11,518
C-4	Reinforcing bar	D29 - D41	Ton	10,000	12,500	12,250	11,200	14,490	11,488	12,088
C-6	H-beam	Size up to 200x200	Ton	9,000	22,100	15,000	14,000	-	15,025	15,025
C-7	H-beam	H300x300 and more	Ton	9,000	22,100	17,500	14,000	-	15,650	15,650
	Maintenance fee for H-beam		Ton	9,000	-	-	-	-	9,000	9,000
C-8	Steel angle	L50x50	Ton	9,000	20,700	11,000	12,000	-	13,175	13,175
C-9	Steel angle	L75x75	Ton	9,000	20,700	-	12,000	-	13,900	13,900
	Channel	C150×75×6.5	Ton	9,000	22,100	15,000	14,000	-	15,025	15,025
	Channel	C200×80×7.5	Ton	9,000	22,100	15,000	14,000	-	15,025	15,025
	Channel	C250×90×9	Ton	9,000	22,100	15,000	14,000	-	15,025	15,025
C-11	Tie-rod (NHT690 2pcs/rod, L=10m)	φ70	Ton	7,000	-	-	-	-	7,000	7,000
	Tie-rod (NHT690 2pcs/rod, L=10m)	φ75	Ton	7,500	-	-	-	-	7,500	7,500
	Tie-rod (NHT690 2pcs/rod, L=10m)	φ80	Ton	8,000	-	-	-	-	8,000	8,000
C-12	Steel wire		Kg	15	35	18	30	-	25	25
C-13	Barbed wire		Kg	20	22	20	27	-	22	22
C-14	Galvanized Gabion box	2x1x1m, 3.9mm wire	pc	200	2,800	-	2,000	-	1,667	1,667
C-18	Cement (Sulfate Resisting Cement)	type V, 50kg bag	Ton	1,000	1,400	935	850	1,424	1,046	1,122
C-19	Cement (Nomal Portland Cement)	type I, 50kg bag	Ton	900	1,300	870	800	1,343	968	1,043
C-20	Non shrink cement		kg	10	16,600	10	900	6	4,380	3,505
C-25	Water reducing agent		Lit.	10	-	35	-	-	23	23
C-28	Fine aggregate for concrete		m3	135	70	50	70	65	81	78
C-29	Coarse aggregate for concrete	25-40mm	m3	200	170	160	120	156	163	161
C-30	Sand for backfill		m3	90	60	40	55	57	61	60
C-31	Crushed stone for pavement		m3	40	210	120	145	-	129	129
C-32	Cobble	200-400mm	m3	40	140	90	165	-	109	109
C-33	Timber	50W*50H*4000L	m3	5,200	6,900	5,500	4,000	-	5,400	5,400
C-34	Plywood	1.22x2.44 m T=12mm	m2	150	140	280	200	-	193	193
	Plywood	1.22x2.44 m T=18mm	m2	200	200	315	235	-	238	238
C-35	Plywood (coating)	1.22x2.44 m T=12mm	m2	180	60	320	310	-	218	218
	Plywood (coating)	1.22x2.44 m T=18mm	m2	230	60	370	355	-	254	254
	Concrete form oil		ℓ	-	-	10	-	-	10	10
	Sandbag	48×62cm	pc	10	30	-	11	-	17	17
	Sandbag (1 ton)	86×86×120cm	pc	50	280	-	160	-	163	163

C. Construction Material

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
C-36	Steel plate	1.2m×2.5m, t=22mm	pc	6,000	1,380	-	7,300	-	4,893	4,893
C-37	Steel plate	1.5m×3.0m, t=22mm	pc	8,000	2,070	-	9,000	-	6,357	6,357
	Checkered steel plate	1.2m×2.5m, t=22mm	pc	6,500	2,070	-	-	-	4,285	4,285
	Checkered steel plate	1.5m×3.0m, t=22mm	pc	8,500	3,040	-	-	-	5,770	5,770
C-38	Oil boom	upper 30cm×lower 40cm (from water surface)	m	1,000	-	-	-	-	1,000	1,000
C-40	Oil paint		Lit.	-	28	50	60	116	46	64
C-41	Emulsion paint		Lit.	-	28	52	40	72	40	48
C-42	Acrylics paint		Lit.	-	28	60	55	81	48	56
C-43	Vinyl paint		Lit.	-	42	65	50	-	52	52
C-45	Emulsion putty		Lit.	-	28	40	33	12	34	28
C-46	Oil putty		Lit.	-	28	40	33	15	34	29
C-47	Brick	200x100x60	1000pc	400	1,380	1,250	1,100	2,336	1,033	1,293
C-48	Concrete block	150x200x400	1000pc	600	8,280	4,200	10,900	8,640	5,995	6,524
C-49	Asphalt water proofing sheet		m2	80	83	80	85	-	82	82
	Roof drain	for φ100mm, PVC		-	-	680	200	982	440	621
C-50	Polystyrene form	t=50mm	m2	-	98	100	125	140	108	116
C-51	Bitumen		Kg	20	20	-	15	-	18	18
C-52	Common glass	t=4mm	m2	-	70	60	90	1,265	73	371
C-53	Glass containing a net	t=6.8mm	m2	-	276	95	200	1,328	190	475
C-54	Stainless steel hinge		pc	-	-	150	125	472	138	249
C-55	Door lock		pc	-	276	860	280	5,658	472	1,769
C-56	Door closer		pc	-	1,656	1,250	550	2,923	1,152	1,595
C-57	Aluminum window	1500x1000	m2	1,200	2,070	4,500	2,500	-	2,568	2,568
C-58	Aluminum louver	1000x500	m2	-	2,070	3,000	2,800	-	2,623	2,623
C-59	Steel door	2000x2500	m2	-	27,600	20,000	30,000	7,422	25,867	21,256
C-60	Wooden door	600x2000	pc	-	3,450	3,580	4,000	6,842	3,677	4,468
C-61	Galvanized steel Handrail	H=1.100	m	1,000	1,380	-	-	-	1,190	1,190
C-62	Steel stairs	W:1.2m x H:10m	t	20,000	41,400	-	-	-	30,700	30,700
C-63	Guardrail for Bridge (galvanized steel)	H:1.2m	m	3,000	1,660	-	-	-	2,330	2,330
C-64	Guardrail for Road (galvanized steel)	H:1.1m	m	2,200	1,520	-	-	-	1,860	1,860
C-65	Guardpipe for Road (galvanized steel)	H:1.1m	m	-	1,110	-	-	-	1,110	1,110
C-66	Polyethylene sheet	t=0.15㎜	m2	20	30	-	17	15	22	21
C-67	Grating (galvanized steel)	T-20	m2	-	4,140	-	-	-	4,140	4,140
C-68	Ceramic tile		m2	100	138	230	180	183	162	166
C-69	Terrazzo tile		m2	-	98	140	120	124	119	121

C. Construction Material

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				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
C-70	Marble stone		m2	-	690	800	900	1,556	797	987
C-71	Cement tile	200*200*20	m2	45	70	100	100	112	79	85
C-72	P-Tile	300*300*4mm	m2	-	208	150	140	595	166	273
C-73	Gypsum board	t=12	m2	150	221	200	150	593	180	263
C-74	Cement board	t=6	m2	-	138	-	135	-	137	137
	Corner bead	t=9mm	m	-	166	-	-	16	166	91
	Ceiling access hatch	□600mm	pc	-	4,140	2,500	350	3,962	2,330	2,738
C-77	Nail	55mm	kg	15	50	-	-	-	33	33
C-78	PVC pipe	φ250	m	300	390	-	360	671	350	430
C-79	PVC pipe	φ200	m	220	250	-	290	442	253	301
C-80	PVC pipe	φ150	m	160	140	-	145	303	148	187
C-81	PVC pipe	φ100	m	130	90	-	75	172	98	117
C-82	PVC pipe	φ 50	m	60	30	-	28	67	39	46
C-83	PVC pipe	φ 25	m	30	20	-	12	41	21	26
C-90	Galvanized steel pipe	25A	m	80	70	-	75	360	75	146
C-91	Galvanized steel pipe	50A	m	160	130	-	130	737	140	289
C-92	Galvanized steel pipe	100A	m	350	240	-	200	1,310	263	525
C-93	Galvanized steel pipe	200A	m	750	560	-	450	4,421	587	1,545
C-94	Galvanized steel pipe	300A	m	1,000	830	-	700	9,005	843	2,884
C-95	Rabber shoe for Bridge	Pad type, t=32mm	m2	-	96,600	-	-	-	96,600	96,600
	Rabber shoe for Bridge	Pad type, t=40mm	m2	-	118,680	-	-	-	118,680	118,680
	Rabber shoe for Bridge	Pad type, t=50mm	m2	-	151,800	-	-	-	151,800	151,800
C-96	Expansion joint for Bridge	steel, ⊿=20mm	m2	-	4,140	-	-	-	4,140	4,140
	Expansion joint for Bridge	steel, ⊿=35mm	m2	-	5,520	-	-	-	5,520	5,520
	Anchor rod for bridge	fixed, φ32	pc	150	2,070	-	-	-	1,110	1,110
	Anchor rod for bridge	movable, φ32	pc	150	2,070	-	-	-	1,110	1,110
C-135	Dowell bar	φ28, L=700mm	pc	70	280	-	145	-	165	165
C-136	Dowell bar cap	φ28	pc	100	70	-	30	-	67	67
C-98	Water stop (Rabber type)	w:230mm	m	100	120	-	240	74	153	134
C-99	Elastic expansionn joint filler	20mm	m2	100	210	-	500	1,965	270	694
C-137	Geotextile	nylon・polyester, t=0.5mm	m2	30	50	-	35	-	38	38
C-100	Electric wire	2mm2-2C	m	-	15	-	7	62	11	28
C-101	Electric wire	2mm2-3C	m	-	18	-	9	75	14	34
C-102	Electric wire	3.5mm2-2C	m	-	24	-	11	65	18	33
C-103	Electric wire	3.5mm2-3C	m	-	33	-	13	78	23	41

C. Construction Material

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				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
C-104	Electric wire	3.5mm2-4C	m	-	41	-	24	93	33	53
C-105	Electric wire	5.5mm2-2C	m	-	34	-	27	100	31	54
C-106	Electric wire	5.5mm2-3C	m	-	46	-	38	101	42	62
C-107	Electric wire	5.5mm2-4C	m	-	56	-	55	127	56	79
C-108	Electric wire	8mm2-3C	m	-	70	-	60	137	65	89
C-109	Electric wire	14mm2-3C	m	-	98	-	65	188	82	117
C-110	Electric wire	22mm2-3C	m	-	208	-	150	350	179	236
C-111	Electric wire	30mm2-3C	m	-	276	-	170	441	223	296
C-112	Electric wire	38mm2-3C	m	-	329	-	200	444	265	324
C-113	Electric conduit pipe	φ20	m	-	12	35	30	39	26	29
C-114	Electric conduit pipe	φ50	m	-	26	55	45	67	42	48
C-115	Electric conduit pipe	φ100	m	-	70	95	67	166	77	100
C-116	Electric conduit pipe	φ150	m	-	111	215	80	295	135	175
C-117	Switch	AC300V 10A	pc	-	346	-	-	211	346	279
C-118	Socket outlet	AC250V 2P-13A	pc	-	208	-	-	196	208	202
C-119	Pull box	100x100x100	pc	-	138	-	100	232	119	157
C-120	Breaker	MCB 4P 50AF/30AT	pc	-	1,036	-	710	968	873	905
C-121	Breaker	ELB 2P 50AF/20AT	pc	-	690	-	6,200	499	3,445	2,463
C-122	Power distribution board	MCB 2P 50AF/20AT x14	pc	-	8,280	-	5,700	13,221	6,990	9,067
C-123	Fluorescent light (Ceiling type)	20Wx4 (Ceiling)	set	-	1,036	-	630	2,808	833	1,491
C-124	Fluorescent light (Ceiling mounted type)	40Wx2 (Ceiling)	set	-	898	-	700	1,757	799	1,118
C-125	Fluorescent light (Ceiling mounted type)	40Wx1 (Ceiling)	set	-	690	-	240	1,062	465	664
C-126	Fluorescent light (Wall mounted type)	18Wx1 (Wall)	set	-	690	-	210	765	450	555
C-127	Incandescent lamp (Ceiling mounted type)	60W*1 (Ceiling)	set	-	484	-	250	1,203	367	646
C-128	Incandescent lamp (Waterproof type)	60W*1 (Wall)	set	-	690	-	440	1,203	565	778
C-129	Ventilation fan	400CMHx14mmAp	set	-	11,730	-	1,000	1,965	6,365	4,898
C-130	Ventilation fan	580CMHx7mmAp	set	-	20,700	-	12,700	1,637	16,700	11,679
C-131	Air-conditioner	5500kcal/h	set	-	16,560	15,000	16,100	24,558	15,887	18,055
C-132	Washstand		set	-	-	3,000	-	-	3,000	3,000
C-133	Sink cabinet		set	-	-	5,000	10,000	-	7,500	7,500
C-134	Transformer (3-phase)	200KVA	set	-	-	-	-	266,459	266,459	266,459
C-135	Transformer (3-phase)	100KVA	set	-	-	-	-	211,500	211,500	211,500
K-001	Caulking material		kg	-	-	-	130	-	130	130
K-002	Hydrated lime		kg	10	-	1	-	-	6	6
K-003	Abrasive paper		sh	-	-	-	8	-	8	8

C. Construction Material

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
P-001	Coated steel pipe	6.4mm	m	-	-	-	-	57	57	57
P-002	Coated steel pipe	15.9mm	m	-	-	-	-	82	82	82
P-003	Slice valve	32mm	pc	-	-	-	150	409	150	280
P-004	Gass cock	GC25	pc	-	-	8,000	3,000	-	5,500	5,500
P-005	Screw cock	GC25	pc	-	-	35,000	-	-	35,000	35,000
P-006	Drain plate	COA100	pc	-	-	-	-	1,637	1,637	1,637
P-007	Western style toilet bowl	Lowtank type	pc	-	-	2,000	2,000	6,549	2,000	3,516
P-008	Water faucet		pc	-	-	1,250	1,500	3,602	1,375	2,117
P-009	Sewage tank	450x450x600	pc	-	-	-	5,000	3,438	5,000	4,219
P-010	Valve	40A	pc	-	-	-	300	327	300	314
P-012	Soak pit	1200φx2,600mm	pc	-	-	-	15,000	-	15,000	15,000
M-002	Ventilation fan (Ceiling)	550CMHx7mA	pc	-	-	-	4,500	3,929	4,500	4,215
M-003	Ventilation fan (Wall)	400CMHx7mA	pc	-	-	-	5,000	3,274	5,000	4,137
M-004	Fan for pipe	100φ 100 m3/h	pc	-	-	-	-	1,310	1,310	1,310
M-005	Air filter	500x1000x25	pc	-	-	-	600	1,637	600	1,119
M-006	Air filter	500x1500x25	pc	-	-	-	750	3,274	750	2,012
M-007	Spiral duct	150φ	pc	-	-	-	-	819	819	819
M-008	Bendcap	150φ	pc	-	-	-	-	1,228	1,228	1,228
M-009	Assembling equipment for gas cylinder		set	-	-	-	200	3,274	200	1,737
M-010	Thermostat		pc	-	-	-	200	1,064	200	632
E-001	Heat resistance cable	HP 1.2－4C	m	-	-	-	-	819	819	819
E-003	Outlet box	square w/coverplate	pc	-	-	-	150	230	150	190
E-004	Outlet box	3P 15A	pc	-	-	-	150	145	150	148
E-005	Cover plate		pc	-	-	-	-	85	85	85
E-006	Distribution board		pc	-	-	-	4,300	13,221	4,300	8,761
E-007	Firealarm reception board	5-wire circuit	pc	-	-	-	4,300	178,350	4,300	91,325
E-008	Smoke detector	Light sensing type	pc	-	-	-	550	1,284	550	917
E-009	Heat detector	Constant temperature type	pc	-	-	-	670	1,284	670	977
E-010	General panel	w/lamp,bell	pc	-	-	-	6,000	87,284	6,000	46,642
E-011	Mercury lamp material		set	-	-	-	150	281	150	216
E-012	Cable	vv3c-5.5	m	-	-	-	-	101	101	101
E-013	Fluorescent light (Ceiling type)	F61WP	pc	-	-	-	230	1,203	230	717
E-014	Flexible pipe	C25	m	-	-	-	10	99	10	55
E-015	Heat resistance cable	HP 1.2mm-5P	m	-	-	-	30	101	30	66
E-016	Conductor	60sq	m	-	-	-	390	221	390	306

C. Construction Material

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
E-017	Supporting material		pc	-	-	-	5	9	5	7
E-018	Line-connecting terminal	60sq	pc	-	-	-	50	52	50	51
E-019	Grounding rod	14 x1500	pc	-	-	-	-	1,277	1,277	1,277
E-020	Grounding copper plate	1.5t x 900	pc	-	-	-	800	1,162	800	981
E-021	Indication plate		pc	-	-	-	230	1,171	230	701
E-022	Earthing terminal board	1P＋2	pc	-	-	-	990	18,419	990	9,705
E-023	Vinyl raceway	VE(28)	m	-	-	-	-	72	72	72
E-024	Vinyl electric wire	5.5sq	m	-	-	-	13	40	13	27
E-025	Vinyl electric wire	50sq	m	-	-	-	13	113	13	63
E-026	Conduit	FEP(50)	m	-	-	-	16	186	16	101
E-027	Conduit	CP(31)	m	-	-	-	40	78	40	59
E-028	Normal connecting bend	CP(31)	m	-	-	-	41	54	41	48
E-029	Flexible metal conduit		m	-	-	-	67	195	67	131
E-030	Box connector		pc	-	-	-	35	237	35	136
E-031	Pipe connector		pc	-	-	-	50	142	50	96
E-032	Pull box	300x300x200	pc	-	-	-	38	413	38	226
E-033	Handhall cap	Φ600	pc	-	-	-	1,250	5,133	1,250	3,192

E. Transportation / Customs Clearance

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE)					Average from A to D (AV. of 4 companies)	Average from A to E (AV. of 5 companies)
				A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom		
E-001	Port discharge fee	General Cargo	F/T	-	-	135	160	-	148	148
E-003	Customs clearance	General Cargo	F/T	-	-	60	60	-	60	60
E-004	Transportation cost	General Cargo (Alexandria to Dirout)	F/T	-	500	1,000	500	557	667	639
	Transportation cost	General Cargo (Cairo to Dirout)	F/T	-	500	800	350	491	550	535
	Transportation cost	for heavy equipment (Cairo to Dirout), 30t	unit	-	11,100	9,000	14,000	19,647	11,367	13,437
	Transportation cost	for heavy equipment (Cairo to Dirout), 40t	unit	-	13,800	11,000	13,000	24,558	12,600	15,590
	Transportation cost	for heavy equipment (Cairo to Dirout), 50t	unit	-	16,600	13,000	16,000	24,558	15,200	17,540

G-J. Others

1$= 17.46 LE

NO	Description	Specification	Unit	Unit Price (LE) A Canal Harbor	B Samcrete	**C Union Seven (Lowest)**	D Eco	E Orascom	**Average from A to D (AV. of 4 companies)**	**Average from A to E (AV. of 5 companies)**
	House rental									
G-01	House rent	3 bed rooms (in Dirout)	month	5,000	8,000	7,000	5,500	-	6,375	6,375
G-02	Land rent	at near Dirout site	m2/month	-	5	20	10	-	12	12
	Vehicle									
H-01	Rent a car w/driver, fuel	Sedan	month	21,450	19,550	11,000	11,000	14,080	15,750	15,416
H-02	Rent a car w/driver, fuel	Pick-up	month	22,125	27,370	9,500	16,000	10,478	18,749	17,095
H-03	Rent a car w/driver, fuel	4WD	month	-	35,190	37,000	22,000	19,974	31,397	28,541
H-04	Rent a car w/driver, fuel	Microbus	month	23,750	39,100	18,000	27,000	21,939	26,963	25,958
	Public Fee									
I-01	Water charge	Connection	lot	-	-	18,000	20,000	-	19,000	19,000
I-03		Usage fee	m3	-	14	11	12	-	12	12
I-07	Telephone charge	Registration	lot	-	-	65	500	-	283	283
I-09		Basic charge		-	-	45	45	-	45	45
I-10		Usage fee	min	-	2	-	1	-	2	2
I-11	Electricity charge	Connection	lot	-	-	65,000	35,000	-	50,000	50,000
I-13		Usage fee	Kwh	-	3	1	2	-	2	2
I-16	Gasoline		Lit	3.50	6.25	3.50	3.50	-	4	4
I-17	Diesel		Lit	2.35	2.35	2.35	2.60	-	2	2
I-18	Lubricating oil		Lit	75	115	100	100	-	98	98
I-19	Oxygen		cylinder	-	3,307	-	1,750	-	2,529	2,529
I-20	Acetylene		cylinder	-	4,629	-	2,100	-	3,365	3,365
	Temporary facilities									
J-1	Temporary fence w/wire	H=2.0m	m	-	700	750	650	-	700	700
J-2	Temporary fence w/sheet	H=2.0m	m	-	1,100	1,250	900	-	1,083	1,083
J-5	Project signboard w/stand	1.8mx3.6m	set	-	26,500	16,000	20,000	-	20,833	20,833
J-6	Project signboard w/stand	0.9mx1.8m	set	-	10,600	9,000	6,000	-	8,533	8,533

APPENDIX E-7

Cost Estimation by each selection method of the unit price

Cost Estimation by each selection method of the unit price

exchange rate: **Average from February to 19th April 2017**
(approximately last 3 months)

Item			Selection of Unit Price		
			Average of 4 companies	Average of 5 companies	Lowest company (Union Seven)
1. Precondition					
Exchange rate		1$=	**113.34 (JPY)**		
		1EUR=	**121.26 (JPY)**		
		1LE=	**6.49 (JPY)**		
Price escalation for LC		per year (%)	1.0	1.0	1.0
		Total (%)	18.9	18.9	18.9
Price escalation for FC		per year (%)	1.6	1.6	1.6
		Total (%)	4.2	4.2	4.2
2. Project Cost					
1) Construction Cost		JPY	5,365,263,000	5,427,763,000	5,128,320,000
	procured by USD		6,138,654 (13.0%)	6,138,654 (12.8%)	6,138,654 (13.6%)
	procured by LE		377,480,579 (45.7%)	387,110,781 (46.3%)	340,971,456 (43.2%)
	procured by JPY		2,219,659,487 (41.3%)	2,219,659,461 (40.9%)	2,219,659,768 (43.2%)
2) Consultant Service (CS)		JPY	388,607,000	396,180,000	403,135,000
3) A. Price Escalation for Construction (LC)		JPY	463,021,000	474,834,000	418,239,000
B. Price Escalation for CS (LC)		JPY	21,013,000	22,445,000	23,759,000
4) A. Price Escalation for Construction (FC)		JPY	122,448,000	122,448,000	122,448,000
B. Price Escalation for CS (FC)		JPY	11,652,000	11,652,000	11,652,000
5) A. Physical Contingency for Construction		JPY	297,537,000	301,252,000	283,450,000
B. Physical Contingency for CS		JPY	21,064,000	21,514,000	21,927,000
7) Interest During Construction		JPY	20,100,000	20,400,000	19,300,000
8) Project Cost (1 ～ 7)		JPY	6,710,705,000	6,798,488,000	6,432,230,000
	procured by USD		6,716,301 (11.3%)	6,716,301 (11.2%)	6,716,301 (11.8%)
	procured by LE		492,653,185 (47.6%)	506,132,776 (48.3%)	449,868,055 (45.4%)
	procured by JPY		2,752,161,483 (41.1%)	2,752,461,455 (40.5%)	2,751,361,790 (42.8%)

Project for Construction of the NDGRs

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

Exchange Rate	1USD=	113.34 (YEN)
	1EUR=	121.26 (YEN)
	1LE=	6.49 (YEN)

Item				Unit	Quantity	Amount			Total (Exchange to YEN)	Remarks
						US$	LE	YEN		
I Construction Cost	I-1 Direct Cost	A. Civil Works	A-1. Excavation	L.S	1.0		4,438,016.50		28,802,000	
			A-2. Embankment	L.S	1.0		18,815,688.70		122,113,000	
			A-3. Demolition work	L.S	1.0		131,996.64		856,000	
			A-4. Sheet pile bank protection	L.S	1.0	636,160.04	5,394,080.56	6,996,465	114,106,000	
			A-5. Bed protection	L.S	1.0		5,023,275.06	10,700,560	43,301,000	
			A-6. Canal bed protection	L.S	1.0	196,050.69	2,641,631.39		39,364,000	
			A-7. Concrete work for regulators	L.S	1.0		44,873,249.71	686,206	291,913,000	
			A-8. Pile foundation work	L.S	1.0		13,382,883.34		86,854,000	
			A-9. Accessory works	L.S	1.0		19,516,170.59	17,569,265	144,229,000	
			A-10. Electric works	L.S	1.0		3,626,535.45	8,650,000	32,186,000	
			A-11. Gate manufactures and works	L.S	1.0		19,081,522.83	1,672,334,600	1,796,173,000	
			A-12. Expense of the machine and facilities	L.S	1.0	221,309.66	23,815,178.13	53,661,990	233,305,000	
			sub total (A. Civil works)			1,053,520.39	160,740,228.90	1,770,599,086	2,933,209,000	
		B. Temporary Works	B-1. Temporary Coffer Dam	L.S	1.0	840,284.40	19,099,569.97	110,691,135	329,885,000	
			B-2. Single Sheet Pile	L.S	1.0	438,170.24	2,790,300.38	6,347,427	74,118,000	
			B-3. Temporary bridge	L.S	1.0		4,976,786.73	53,423,642	85,722,000	
			B-4. Dewatering	L.S	1.0		10,519,709.00		68,272,000	
			B-5. Temporary road & preparation	L.S	1.0		7,783,260.59		50,513,000	
			B-6. diversion works	L.S	1.0		11,759,640.95		76,320,000	
			B-7. Other temporary works	L.S	1.0		18,178,115.27	17,112,000	135,087,000	
			B-8. Transpotation / Shipment	L.S	1.0	1,913,684.57	13,325,895.23	75,199,059	378,581,000	
			sub total (B. Temporary works)			3,192,139.21	88,433,278.12	262,773,263	1,198,502,000	
		C. Building Works	C-1. Control house	L.S	1.0		1,977,700.00		12,835,000	
			C-2. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-3. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-4. Stop log room	L.S	1.0		818,200.00		5,310,000	
			sub total (C. Building works)				3,399,700.00		22,064,000	
		D. Integrated Water Management System	D-1. IWMS manufactures	L.S	1.0		15,676,546.12		101,740,000	
			D-2. Installation for IWMS	L.S	1.0		15,951,897.71		103,527,000	
			sub total (D. Integrated Water Management System)				31,628,443.83		205,268,000	
		E. Dispute Board	E-1. Dispute Board	L.S	1.0	407,000.00			46,129,000	
			sub total (E. Dispute Board)			407,000.00			46,129,000	
						4,652,659.60	284,201,650.85	2,033,372,349	4,405,173,000	
	I-2 Indirect Cost					1,485,994.40	93,278,928.15	186,287,138	960,089,000	
						6,138,654.00	377,480,579.00	2,219,659,487	**5,365,263,000**	
						13.0%	45.7%	41.3%		
II Consultant Service	Remuneration			L.S	1.0		10,092,110.00	230,823,000	296,320,000	
	Direct Expense			L.S	1.0		7,039,178.00	46,603,230	92,287,000	
							17,131,288.00	277,426,230	**388,607,000**	
III Contingency for Construction	Price Contingency		LC: 1.0%/year, total ratio is 18.9%	L.S	1.0		71,343,829.43		**463,021,000**	
			FC: 1.6%/year, total ratio is 4.2%	L.S	1.0	257,823.47		93,225,698	**122,448,000**	
	Physical Contingency			%	5.0	319,823.87	22,441,220.42	115,644,259	**297,537,000**	
IV Contingency for Consultant Service	Price Contingency		LC: 1.0%/year, total ratio is 18.9%	L.S	1.0		3,237,813.43		**21,013,000**	
			FC: 1.6%/year, total ratio is 4.2%	L.S	1.0			11,651,902	**11,652,000**	
	Physical Contingency			%	5.0		1,018,455.07	14,453,907	**21,064,000**	
V Interest During Construction	0.01 %/year			L.S	1.0			20,100,000	**20,100,000**	

Total Construction Cost (I～V)	6,716,301.34	492,653,185.36	2,752,161,483	**6,710,705,000**
	11.3%	47.6%	41.1%	

Project for Construction of the NDGRs

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

Exchange Rate	1USD=	113.34 (YEN)
	1EUR=	121.26 (YEN)
	1LE=	6.49 (YEN)

Item				Unit	Quantity	Amount			Total (Exchange to YEN)	Remarks
						US$	LE	YEN		
I Construction Cost	I-1 Direct Cost	A. Civil Works	A-1. Excavation	L.S	1.0		4,767,928.80		30,943,000	
			A-2. Embankment	L.S	1.0		19,745,485.05		128,148,000	
			A-3. Demolition work	L.S	1.0		135,417.54		878,000	
			A-4. Sheet pile bank protection	L.S	1.0	636,160.04	5,483,872.01	6,996,465	114,689,000	
			A-5. Bed protection	L.S	1.0		5,296,595.82	10,700,560	45,075,000	
			A-6. Canal bed protection	L.S	1.0	196,050.69	2,747,557.23		40,052,000	
			A-7. Concrete work for regulators	L.S	1.0		46,856,694.01	686,206	304,786,000	
			A-8. Pile foundation work	L.S	1.0		13,785,612.89		89,468,000	
			A-9. Accessory works	L.S	1.0		20,278,361.20	17,569,265	149,175,000	
			A-10. Electric works	L.S	1.0		3,656,626.90	8,650,000	32,381,000	
			A-11. Gate manufactures and works	L.S	1.0		19,110,894.23	1,672,334,600	1,796,364,000	
			A-12. Expense of the machine and facilities	L.S	1.0	221,309.66	25,061,353.13	53,661,990	241,393,000	
			sub total (A. Civil works)			1,053,520.39	166,926,398.81	1,770,599,086	2,973,357,000	
		B. Temporary Works	B-1. Temporary Coffer Dam	L.S	1.0	840,284.40	19,557,408.86	110,691,135	332,856,000	
			B-2. Single Sheet Pile	L.S	1.0	438,170.24	2,787,039.42	6,347,427	74,097,000	
			B-3. Temporary bridge	L.S	1.0		5,042,516.27	53,423,642	86,149,000	
			B-4. Dewatering	L.S	1.0		10,519,208.20		68,269,000	
			B-5. Temporary road & preparation	L.S	1.0		8,144,996.97		52,861,000	
			B-6. diversion works	L.S	1.0		11,970,341.42		77,687,000	
			B-7. Other temporary works	L.S	1.0		18,389,197.45	17,112,000	136,457,000	
			B-8. Transpotation / Shipment	L.S	1.0	1,913,684.57	12,886,720.07	75,199,040	375,730,000	
			sub total (B. Temporary works)			3,192,139.21	89,297,428.66	262,773,244	1,204,110,000	
		C. Building Works	C-1. Control house	L.S	1.0		1,977,700.00		12,835,000	
			C-2. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-3. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-4. Stop log room	L.S	1.0		818,200.00		5,310,000	
			sub total (C. Building works)				3,399,700.00		22,064,000	
		D. Integrated Water Management System	D-1. IWMS manufactures	L.S	1.0		15,676,546.12		101,740,000	
			D-2. Installation for IWMS	L.S	1.0		15,951,897.71		103,527,000	
			sub total (D. Integrated Water Management System)				31,628,443.83		205,268,000	
		E. Dispute Board	E-1. Dispute Board	L.S	1.0	407,000.00			46,129,000	
			sub total (E. Dispute Board)			407,000.00			46,129,000	
						4,652,659.60	291,251,971.30	2,033,372,330	4,450,930,000	
	I-2 Indirect Cost					1,485,994.40	95,858,809.70	186,287,131	976,833,000	
						6,138,654.00	387,110,781.00	2,219,659,461	**5,427,763,000**	
						12.8%	46.3%	40.9%		
II Consultant Service	Remuneration			L.S	1.0		11,490,687.00	230,823,000	305,397,000	
	Direct Expense			L.S	1.0		6,807,460.00	46,603,230	90,783,000	
							18,298,147.00	277,426,230	**396,180,000**	
III Contingency for Construction	Price Contingency		LC: 1.0%/year, total ratio is 18.9%	L.S	1.0		73,163,937.61		**474,834,000**	
			FC: 1.6%/year, total ratio is 4.2%	L.S	1.0	257,823.47		93,225,697	**122,448,000**	
	Physical Contingency			%	5.0	319,823.87	23,013,735.93	115,644,258	**301,252,000**	
IV Contingency for Consultant Service	Price Contingency		LC: 1.0%/year, total ratio is 18.9%	L.S	1.0		3,458,349.78		**22,445,000**	
			FC: 1.6%/year, total ratio is 4.2%	L.S	1.0			11,651,902	**11,652,000**	
	Physical Contingency			%	5.0		1,087,824.84	14,453,907	**21,514,000**	
V Interest During Construction	0.01 %/year			L.S	1.0			20,400,000	**20,400,000**	

Total Construction Cost (I～V)	6,716,301.34	506,132,776.16	2,752,461,455	**6,798,488,000**	
	11.2%	48.3%	40.5%		

Project for Construction of the NDGRs

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

Exchange Rate	1USD=	113.34 (YEN)
	1EUR=	121.26 (YEN)
	1LE=	6.49 (YEN)

Item				Unit	Quantity	Amount			Total (Exchange to YEN)	Remarks
						US$	LE	YEN		
I Construction Cost	I-1 Direct Cost	A. Civil Works	A-1. Excavation	L.S	1.0		2,983,317.60		19,361,000	
			A-2. Embankment	L.S	1.0		12,339,320.66		80,082,000	
			A-3. Demolition work	L.S	1.0		90,550.02		587,000	
			A-4. Sheet pile bank protection	L.S	1.0	636,160.04	5,016,900.71	6,996,465	111,658,000	
			A-5. Bed protection	L.S	1.0		4,652,046.73	10,700,560	40,892,000	
			A-6. Canal bed protection	L.S	1.0	196,050.69	1,866,835.18		34,336,000	
			A-7. Concrete work for regulators	L.S	1.0		42,316,592.79	686,206	275,320,000	
			A-8. Pile foundation work	L.S	1.0		13,202,063.72		85,681,000	
			A-9. Accessory works	L.S	1.0		18,579,853.79	17,569,265	138,152,000	
			A-10. Electric works	L.S	1.0		3,886,424.06	8,650,000	33,872,000	
			A-11. Gate manufactures and works	L.S	1.0		18,440,253.53	1,672,334,600	1,792,011,000	
			A-12. Expense of the machine and facilities	L.S	1.0	221,309.66	20,782,686.80	53,661,990	213,624,000	
			sub total (A. Civil works)			1,053,520.39	144,156,845.59	1,770,599,086	2,825,583,000	
		B. Temporary Works	B-1. Temporary Coffer Dam	L.S	1.0	840,284.40	14,254,269.84	110,691,135	298,439,000	
			B-2. Single Sheet Pile	L.S	1.0	438,170.24	2,041,534.12	6,347,427	69,259,000	
			B-3. Temporary bridge	L.S	1.0		3,257,379.37	53,423,642	74,564,000	
			B-4. Dewatering	L.S	1.0		9,863,770.00		64,015,000	
			B-5. Temporary road & preparation	L.S	1.0		5,188,325.85		33,672,000	
			B-6. diversion works	L.S	1.0		10,489,883.36		68,079,000	
			B-7. Other temporary works	L.S	1.0		13,995,481.18	17,112,000	107,942,000	
			B-8. Transpotation / Shipment	L.S	1.0	1,913,684.57	18,428,520.10	75,199,266	411,697,000	
			sub total (B. Temporary works)			3,192,139.21	77,519,163.82	262,773,470	1,127,669,000	
		C. Building Works	C-1. Control house	L.S	1.0		1,977,700.00		12,835,000	
			C-2. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-3. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-4. Stop log room	L.S	1.0		818,200.00		5,310,000	
			sub total (C. Building works)				3,399,700.00		22,064,000	
		D. Integrated Water Management System	D-1. IWMS manufactures	L.S	1.0		15,676,546.12		101,740,000	
			D-2. Installation for IWMS	L.S	1.0		15,951,897.71		103,527,000	
			sub total (D. Integrated Water Management System)				31,628,443.83		205,268,000	
		E. Dispute Board	E-1. Dispute Board	L.S	1.0	407,000.00			46,129,000	
			sub total (E. Dispute Board)			407,000.00			46,129,000	
						4,652,659.60	256,704,153.24	2,033,372,556	4,226,714,000	
	I-2 Indirect Cost					1,485,994.40	84,267,302.76	186,287,212	901,604,000	
						6,138,654.00	340,971,456.00	2,219,659,768	**5,128,320,000**	
						13.6%	43.2%	43.2%		
II Consultant Service	Remuneration			L.S	1.0		12,205,761.00	230,823,000	310,038,000	
	Direct Expense			L.S	1.0		7,164,050.00	46,603,230	93,097,000	
							19,369,811.00	277,426,230	**403,135,000**	
III Contingency for Construction	Price Contingency	LC: 1.0%/year, total ratio is 18.9%		L.S	1.0		64,443,605.18		**418,239,000**	
		FC: 1.6%/year, total ratio is 4.2%		L.S	1.0	257,823.47		93,225,710	**122,448,000**	
	Physical Contingency			%	5.0	319,823.87	20,270,753.06	115,644,274	**283,450,000**	
IV Contingency for Consultant Service	Price Contingency	LC: 1.0%/year, total ratio is 18.9%		L.S	1.0		3,660,894.28		**23,759,000**	
		FC: 1.6%/year, total ratio is 4.2%		L.S	1.0			11,651,902	**11,652,000**	
	Physical Contingency			%	5.0		1,151,535.26	14,453,907	**21,927,000**	
V Interest During Construction	0.01 %/year			L.S	1.0			19,300,000	**19,300,000**	

Total Construction Cost (I～V)	6,716,301.34	449,868,054.79	2,751,361,790	**6,432,230,000**	
	11.8%	45.4%	42.8%		

APPENDIX E-8

Project Cost Estimation

(Summary, Detail and Breakdown)

E-8-1. Summary of the Project Cost Estimation ---------- E-496

E-8-2. Bill of Quantities ---------- E-498

E-8-3. Detail of the Project Cost Estimation ---------- E-511

E-8-4. Breakdown ---------- E-595

E-8-5. Unit Price List ---------- E-877

E-8-1. Summary of the Project Cost Estimation

Project for Construction of the NDGRs

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

Exchange Rate	1USD= 113.34 (YEN)
	1EUR= 121.26 (YEN)
	1LE= 6.49 (YEN)

Item				Unit	Quantity	Amount			Total (Exchange to YEN)	Remarks
						US$	LE	YEN		
I Construction Cost	I-1 Direct Cost	A. Civil Works	A-1. Excavation	L.S	1.0		4,438,016.50		28,802,000	
			A-2. Embankment	L.S	1.0		18,815,688.70		122,113,000	
			A-3. Demolition work	L.S	1.0		131,996.64		856,000	
			A-4. Sheet pile bank protection	L.S	1.0	636,160.04	5,394,080.56	6,996,465	114,106,000	
			A-5. Bank protection	L.S	1.0		5,023,275.06	10,700,560	43,301,000	
			A-6. Canal bed protection	L.S	1.0	196,050.69	2,641,631.39		39,364,000	
			A-7. Concrete work for regulators	L.S	1.0		44,873,249.71	686,206	291,913,000	
			A-8. Pile foundation work	L.S	1.0		13,382,883.34		86,854,000	
			A-9. Accessory works	L.S	1.0		19,516,170.59	17,569,265	144,229,000	
			A-10. Electric works	L.S	1.0		3,626,535.45	8,650,000	32,186,000	
			A-11. Gate manufactures and works	L.S	1.0		19,081,522.83	1,672,334,600	1,796,173,000	
			A-12. Expense of the machine and facilities	L.S	1.0	221,309.66	23,815,178.13	53,661,990	233,305,000	
			sub total (A. Civil works)			1,053,520.39	160,740,228.90	1,770,599,086	2,933,209,000	
		B. Temporary Works	B-1. Temporary Coffer Dam	L.S	1.0	840,284.40	19,099,569.97	110,691,135	329,885,000	
			B-2. Single Sheet Pile	L.S	1.0	438,170.24	2,790,300.38	6,347,427	74,118,000	
			B-3. Temporary bridge	L.S	1.0		4,976,786.73	53,423,642	85,722,000	
			B-4. Dewatering	L.S	1.0		10,519,709.00		68,272,000	
			B-5. Temporary road & preparation	L.S	1.0		7,783,260.59		50,513,000	
			B-6. diversion works	L.S	1.0		11,759,640.95		76,320,000	
			B-7. Other temporary works	L.S	1.0		18,178,115.27	17,112,000	135,087,000	
			B-8. Transpotation / Shipment	L.S	1.0	1,913,684.57	13,325,895.23	75,199,059	378,581,000	
			sub total (B. Temporary works)			3,192,139.21	88,433,278.12	262,773,263	1,198,502,000	
		C. Building Works	C-1. Control house	L.S	1.0		1,977,700.00		12,835,000	
			C-2. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-3. Local contrl house	L.S	1.0		301,900.00		1,959,000	
			C-4. Stop log room	L.S	1.0		818,200.00		5,310,000	
			sub total (C. Building works)				3,399,700.00		22,064,000	
		D. Integrated Water Management System	D-1. IWMS manufactures	L.S	1.0		15,676,546.12		101,740,000	
			D-2. Installation for IWMS	L.S	1.0		15,951,897.71		103,527,000	
			sub total (D. Integrated Water Management System)				31,628,443.83		205,268,000	
		E. Dispute Board	E-1. Dispute Board	L.S	1.0	407,000.00			46,129,000	
			sub total (E. Dispute Board)			407,000.00			46,129,000	
						4,652,659.60	284,201,650.85	2,033,372,349	4,405,173,000	
	I-2 Indirect Cost					1,485,994.40	93,278,928.15	186,287,138	960,089,000	
						6,138,654.00	377,480,579.00	2,219,659,487	**5,365,263,000**	
						13.0%	45.7%	41.3%		
II Consultant Service	Remuneration			L.S	1.0		10,092,110.00	230,823,000	296,320,000	
	Direct Expense			L.S	1.0		7,039,178.00	46,603,230	92,287,000	
							17,131,288.00	277,426,230	**388,607,000**	
III Contingency for Construction	Price Contingency		LC: 1.0%/year, total ratio is 18.9%	L.S	1.0		71,343,829.43		**463,021,000**	
			FC: 1.6%/year, total ratio is 4.2%	L.S	1.0	257,823.47		93,225,698	**122,448,000**	
	Physical Contingency			%	5.0	319,823.87	22,441,220.42	115,644,259	**297,537,000**	
IV Contingency for Consultant Service	Price Contingency		LC: 1.0%/year, total ratio is 18.9%	L.S	1.0		3,237,813.43		**21,013,000**	
			FC: 1.6%/year, total ratio is 4.2%	L.S	1.0			11,651,902	**11,652,000**	
	Physical Contingency			%	5.0		1,018,455.07	14,453,907	**21,064,000**	
V Interest During Construction	0.01 %/year			L.S	1.0			20,100,000	**20,100,000**	

Total Construction Cost (I～V)	6,716,301.34	492,653,185.36	2,752,161,483	**6,710,705,000**
	11.3%	47.6%	41.1%	

E-8-2. Bill of Quantities

Project for Construction of the New Dirout Group of regulators (1/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
I Construction Cost										6,138,654.00	377,480,579.00	2,219,659,487	**5,365,263,489**	
I-1 Direct Cost										4,652,659.60	284,201,650.85	2,033,372,349	**4,405,173,502**	
A. Civil Works										1,053,520.39	160,740,228.90	1,770,599,086	**2,933,209,173**	
A-1. Excavation	A-1-1. Excavation	1. excavation	1). excavation and loading	0.8m3 back hoe	m3	23,390.0		19.82			463,589.80		3,008,698	
			2). excavation for concrete basement	0.8m3 back hoe	m3	1,320.0		28.32			37,382.40		242,612	
		sum									500,972.20		3,251,310	
		2. excavated soil disposal	1). excavated soil disposal	Distance 20km	m3	24,710.0		159.33			3,937,044.30		25,551,418	
total											4,438,016.50		28,802,727	
A-2. Embankment	A-2-1. Embankment	1. Embankment	1). backfill 1	15t bulldozer	m3	76,490.0		37.90			2,898,971.00		18,814,322	
			2). backfill 2	vibration roller,tamping machine	m3	7,470.0		45.37			338,913.90		2,199,551	
			3). material fee for backfill	sand	m3	60,873.0		67.10			4,084,578.30		26,508,913	
		sum									7,322,463.20		47,522,786	
		2. transportation fee for buying material	1). excavation and loading	0.8m3 back hoe loose soil	m3	60,873.0		19.22			1,169,979.06		7,593,164	
			2). transportation by damp truck	Distance 20km	m3	60,873.0		135.51			8,248,900.23		53,535,362	
		sum									9,418,879.29		61,128,527	
		3. transportation fee for reused material	1). excavation and loading	0.8m3 back hoe loose soil	m3	45,183.0		19.22			868,417.26		5,636,028	
			2). transportation by damp truck	Distance 0.3km	m3	45,183.0		18.47			834,530.01		5,416,100	
		sum									1,702,947.27		11,052,128	
		4. Earth finishing	1). earth finishing foundation		m3	4,640.0		7.36			34,150.40		221,636	
			2). rough finishing	0.8m3 back hoe	m2	1,610.0		34.70			55,867.00		362,577	
		sum									90,017.40		584,213	
		5. protection fence for waterpollution	1). protection fence		m	253.0		1,112.18			281,381.54		1,826,166	
total											18,815,688.70		122,113,820	
A-3. Demolition work	A-3-1. Demolition work	1. Demolition work	1). concrete demolition	reinforced concrete	m3	195.4		469.06			91,663.70		594,897	
			2). concrete demolition	plain concrete	m3	5.8		224.59			1,298.13		8,425	
			3). breaked concrete disposal	Distance 20km	m3	201.2		194.01			39,034.81		253,336	
total											131,996.64		856,658	
A-4. Sheet pile bank protection	A-4-1. Capping concrete	1. crown works	1). formwork	reinforced concrete	m2	1,663.9		400.74			666,791.28		4,327,475	
			2). placing reinforced concrete	25N/mm2 by crane	m3	517.9		1,356.29			702,409.02		4,558,635	
			3). curing	reinforced concrete	m3	517.9		7.83			4,055.07		26,317	
			4). bending,cutting and placing for re-bar	D12	t	13.6		18,857.16			256,777.94		1,666,489	
			5). joint filler	@10m	m2	53.5		403.70			21,614.09		140,275	
	sub total										1,651,647.40		10,719,192	
	A-4-2. Sheet pile	1. Sheet pile protection	1). driving sheet pile	PU18, L≦15m (driving length)	sheet	126.0		1,466.45			184,772.70		1,199,175	
				PU18, L≦12m (driving length)	sheet	146.0		1,231.17			179,750.82		1,166,583	
				PU18, L≦9m (driving length)	sheet	43.0		997.84			42,907.12		278,467	
				PU12, L≦12m (driving length)	sheet			1,055.19						
				PU12, L≦9m (driving length)	sheet	62.0		880.52			54,592.24		354,304	
				PU12, L≦6m (driving length)	sheet	486.0		761.90			370,283.40		2,403,139	
				PU12, L≦4m (driving length)	sheet			645.24						
				PU12, L≦2m (driving length)	sheet			527.92						
			2). Sheet pile press fitting	PU, L≦15m (driving length)	sheet			165.71	5,233					
				PU, L≦12m (driving length)	sheet			130.98	4,139					
			3). Mobilization & demobilization	press fitting machine for sheet pile	nos			700.36	19,332					
			4). material fee for sheet pile	PU12, 18	t	722.1	881.00			636,160.04			72,102,379	
			5). installation for tie-rod and waling		t	47.7		3,311.13			157,866.66		1,024,555	
			6). material fee for tie-rod (NHT690)	φ46 L=10.0m 2pcs/rod	nos	2.0			68,175			136,350	136,350	
				φ46 L=11.0m 2pcs/rod	nos	2.0			74,295			148,590	148,590	
				φ46 L=11.5m 2pcs/rod	nos	23.0			77,040			1,771,920	1,771,920	
				φ46 L=12.0m 2pcs/rod	nos	20.0			79,785			1,595,700	1,595,700	
				φ46 L=13.0m 2pcs/rod	nos	2.0			85,905			171,810	171,810	
				φ46 L=13.5m 2pcs/rod	nos	8.0			89,325			714,600	714,600	
				φ46 L=14.0m 2pcs/rod	nos	6.0			92,025			552,150	552,150	
				φ42 L=12.0m 2pcs/rod	nos	8.0			51,255			410,040	410,040	
				φ42 L=9.0m 2pcs/rod	nos	2.0			53,595			107,190	107,190	
				φ42 L=8.5m 2pcs/rod	nos	9.0			69,480			625,320	625,320	
				φ32L=7.5m 2pcs/rod	nos	22.0			27,990			615,780	615,780	
				φ32 L=8.0m 2pcs/rod	nos	1.0			29,385			29,385	29,385	
				φ32 L=9.0m 2pcs/rod	nos	1.0			32,670			32,670	32,670	

Project for Construction of the New Dirout Group of regulators (2/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
				φ25 L=7.5m 2pcs/rod	nos	4.0			21,240			84,960	84,960	
			7). material fee for waling	UPN	t	32.7		12,553.60			410,389.73		2,663,429	
			8). sheet pile welding	on site	nos	293.0		1,944.85			569,841.05		3,698,268	
			9). anticorrosion painting (bitumen)		m2	7,145.3		248.00			1,772,029.44		11,500,471	
	sub total									636,160.04	3,742,433.16	6,996,465	103,387,235	
total										636,160.04	5,394,080.56	6,996,465	114,106,427	
A-5. Bank protection	A-5-1. Bank protection	1. Riprap	1). wet stone pitching	t=35cm	m2	2,008.8		841.71			1,690,827.04		10,973,467	
			2). placing backfill concrete	18N/mm2 by crane	m3	161.4		1,479.36			238,709.52		1,549,225	
			3). curing	plain concrete	m3	161.4		12.92			2,084.77		13,530	
		sum									1,931,621.33		12,536,222	
		2. crown works	1). form for lean concrete		m2	10.2		209.60			2,137.92		13,875	
			2). placing lean concrete	18N/mm2 by crane	m3	1.8		1,479.36			2,640.65		17,138	
			3). curing	plain concrete	m3	1.8		12.92			23.06		150	
			4). formwork	for small structure	m2	107.8		355.10			38,295.03		248,535	
			5). placing plain concrete	18N/mm2 by man power	m3	16.0		1,109.76			17,750.61		115,201	
			6). curing	small structure	m3	17.8		30.22			537.31		3,487	
			7). gravel for under concrete	t=100mm	m2	3.6		99.31			354.53		2,301	
			8). joint filler	expansion joint	m2	1.3		45.20			59.93		389	
		sum									61,799.04		401,076	
		3. base concrete	1). form for lean concrete		m2	10.7		209.60			2,232.24		14,487	
			2). placing lean concrete	18N/mm2 by crane	m3	2.7		1,479.36			3,938.79		25,563	
			3). curing	plain concrete	m3	2.7		12.92			34.39		223	
			4). formwork	for small structure	m2	104.4		355.10			37,089.90		240,713	
			5). placing plain concrete	18N/mm2 by man power	m3	16.4		1,109.76			18,201.72		118,129	
			6). curing	small structure	m3	16.4		30.22			495.65		3,217	
			7). gravel for under concrete	t=100mm	m2	4.5		99.31			445.55		2,892	
			8). joint filler	expansion joint	m2	1.7		45.20			75.27		489	
		sum									62,513.51		405,713	
		4. gabion protection	1). installation for gabion	0.5×1.0×2.0	nos	1,184.0		1,173.37	3,990		1,389,270.08	4,724,160	13,740,523	
				1.0×1.0×2.0	nos	670.0		2,355.33	8,920		1,578,071.10	5,976,400	16,218,081	
		sum									2,967,341.18	10,700,560	29,958,604	
total											5,023,275.06	10,700,560	43,301,615	
A-6. Canal bed protection	A-6-1. bed protection for upstream	1. Bed protection for upstream	1). stone riprap	working radius r=less 9m	m3	956.5		606.24			579,868.56		3,763,347	
			2). grading for riprap		m2	1,952.0		76.86			150,030.72		973,699	
		sum									729,899.28		4,737,046	
	A-6-2. bed protection for downstream	1. Bed protection for downstream	1). stone riprap	working radius r=less 9m	m3	1,701.0		606.24			1,031,214.24		6,692,580	
			2). grading for riprap		m2	1,890.0		76.86			145,265.40		942,772	
			3). gravel for backfill	t=0.1m	m3	208.5		746.76			155,699.46		1,010,489	
			4). geotextile	t=0.5mm, Nylon,polyester	m2	2,085.0		46.42			96,785.70		628,139	
		sum									1,428,964.80		9,273,982	
	A-6-3. Sheet pile for water stop	1. Sheet pile for water stop	1). driving sheet pile	PU18, L≦15m (driving length)	sheet	1.0		1,466.45			1,466.45		9,517	
				PU18, L≦12m (driving length)	sheet	3.0		1,231.17			3,693.51		23,971	
				PU18, L≦9m (driving length)	sheet	4.0		997.84			3,991.36		25,904	
				PU12, L≦12m (driving length)	sheet	120.0		1,055.19			126,622.80		821,782	
				PU12, L≦9m (driving length)	sheet	8.0		880.52			7,044.16		45,717	
				PU12, L≦6m (driving length)	sheet	122.0		761.90			92,951.80		603,257	
				PU12, L≦4m (driving length)	sheet	120.0		645.24			77,428.80		502,513	
				PU12, L≦2m (driving length)	sheet	104.0		527.92			54,903.68		356,325	
			2). material fee for sheet pile	PU12, 18	t	222.5	881.00			196,050.69			22,220,385	
			3). sheet pile welding	on site	nos	31.0		1,944.85			60,290.35		391,284	
			4). anticorrosion painting	sand plasting and painting	m2	193.7		248.00			48,032.64		311,732	
			5). sheet pile cutting		m	24.0		264.24			6,341.76		41,158	
		sum								196,050.69	482,767.31		25,353,545	
total										196,050.69	2,641,631.39		39,364,573	
A-7. Concrete work for regulators	A-7-1. concrete works	regulator body	1). earth foundation finishing		m2	4,553.1		28.06			127,759.42		829,159	
			2). form for lean concrete		m2	51.9		209.60			10,882.43		70,627	
			3). placing lean concrete	18N/mm2 by crane	m3	403.1		1,326.22			534,599.28		3,469,549	
			4). curing	plain concrete	m3	403.1		12.92			5,208.05		33,800	
			5). formwork	reinforced concrete	m2	14,302.0		400.74			5,731,375.46		37,196,627	

Project for Construction of the New Dirout Group of regulators (3/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
			6). formwork	circular structure	m2	490.7		525.17			257,706.17		1,672,513	
			7). placing concrete	25N/mm2(src, night time)	m3	14,667.0		1,446.03			21,208,922.01		137,645,904	
			8). placing concrete	25N/mm2(opc)	m3	1,372.5		1,356.29			1,861,467.33		12,080,923	
			9). curing	reinforced concrete	m3	16,039.5		7.83			125,589.05		815,073	
			10). bending,cutting and placing for re-bar	D13～D25mm	t	586.0		17,805.74			10,434,680.00		67,721,073	
			11). scaffolding	not less than 4m	m2	10,755.1		161.52			1,737,170.21		11,274,235	
			12). pipe support falsework	not greater than 4t/m2	m3	4,360.7		144.07			628,244.60		4,077,307	
			13). joint filler	t=20mm	m2	488.7		403.70			197,284.15		1,280,374	
			14). water stop	w=300mm	m	251.0		37.54	2,214		9,423.29	555,758	616,915	
			15). water stop	water-swelling	m	66.1		16.56	1,975		1,093.78	130,448	137,547	
			16). addtive for rust-proofing	for reinforced condrete	m3	16,039.5		124.81			2,001,844.48		12,991,971	
total											44,873,249.71	686,206	291,913,597	
A-8. Pile foundation work	A-8-1. Cast-in-place RC pile	φ1,000	1). mobilization and demobilization		L.S	2.0		297,720.00			595,440.00		3,864,406	
			2). pile drilling	including fabricate and lowering stell cage and pour concrete	m	2,429.6		1,712.00			4,159,475.20		26,994,994	
			3). placing concrete	25N/mm2(src)	m3	1,908.2		1,386.07			2,644,903.45		17,165,423	
			4). bending,cutting and placing for re-bar		t	301.0		17,805.74			5,359,812.63		34,785,184	
			5). pile head demolishing	φ1,000, 0.8m	m3	120.6		469.06			56,586.06		367,244	
			6). load test		L.S	2.0		283,333.00			566,666.00		3,677,662	
total											13,382,883.34		86,854,913	
A-9. Accessory works	A-9-1. Road works	1. Asphalt pavement roadway	1). enbankment		m3	10,225.3		37.90			387,539.62		2,515,132	
			material fee for temporary road	sand	m3	12,916.2		67.10			866,676.59		5,624,731	
			transportation fee for buying material											
			excavation and loading	0.8m3 back hoe loose soil	m3	12,916.2		19.22			248,249.24		1,611,138	
			transportation by damp truck	Distance 20km	m3	12,916.2		135.51			1,750,273.40		11,359,274	
			2). wearing course	t=50mm	m2	4,379.6		143.00			626,287.09		4,064,603	
			3). binder course	t=60mm	m2	4,379.6		143.00			626,287.09		4,064,603	
			4). base course	t=200mm	m2	4,379.6		132.78			581,527.27		3,774,112	
			5). sub base course	t=200mm	m2	4,379.6		132.78			581,527.27		3,774,112	
			6). tack coat		m2	4,379.6		16.00			70,074.08		454,781	
			7). prime coat		m2	4,379.6		19.00			83,212.97		540,052	
		sum									5,821,654.62		37,782,538	
		2. Asphalt pavement pathway	1). wearing course	t=50mm	m2	623.7		143.00			89,191.96		578,856	
			2). base course	t=200mm	m2	623.7		132.78			82,817.54		537,486	
			3). prime coat		m2	623.7		19.00			11,850.68		76,911	
		sum									183,860.18		1,193,253	
		3. curb concrete	1). form for lean concrete		m2	127.3		209.60			26,689.20		173,213	
			2). placing lean concrete	18N/mm2 by crane	m3	20.7		1,479.36			30,585.21		198,498	
			3). curing	plain concrete	m3	20.7		12.92			267.11		1,734	
			3). formwork	for small structure	m2	964.9		355.10			342,646.12		2,223,773	
			4). placing plain concrete	18N/mm2 by man power	m3	109.5		1,109.76			121,480.35		788,407	
			5). curing	small structure	m3	109.5		30.22			3,308.04		21,469	
			6). gravel for under concrete	t=100mm	m2	41.3		99.31			4,106.39		26,650	
		sum									529,082.42		3,433,745	
		4. guard pipe	H=1.1m		m	629.81		1,212.12			763,405.29		4,954,500	
		5. slope protection	1). stone masonry with mortar	t=35cm	m2	1,765.25		841.71			1,485,828.57		9,643,027	
			2). placing backfill concrete	18N/mm2 by crane	m3	214.54		1,479.36			317,374.66		2,059,762	
			3). curing	plain concrete	m3	214.54		12.92			2,771.79		17,989	
		sum									1,805,975.02		11,720,778	
		6. crown concrete	1). form for lean concrete		m2	47.9		209.60			10,031.45		65,104	
			2). placing lean concrete	18N/mm2 by crane	m3	7.9		1,479.36			11,751.29		76,266	
			3). curing	plain concrete	m3	7.9		12.92			102.63		666	
			4). formwork	for small structure	m2	395.9		355.10			140,574.81		912,331	
			5). placing plain concrete	18N/mm2 by man power	m3	59.1		1,109.76			65,531.32		425,298	
			6). curing	small structure	m3	20.7		30.22			624.78		4,055	
			7). gravel for under concrete	t=100mm	m2	15.9		99.31			1,577.73		10,239	
			8). joint filler	expansion joint	m2	5.9		45.20			266.90		1,732	
		sum									230,460.91		1,495,691	
		7. base concrete	1). form for lean concrete		m2	53.7		209.60			11,250.69		73,017	
			2). placing lean concrete	18N/mm2 by crane	m3	13.4		1,479.36			19,851.90		128,839	

Project for Construction of the New Dirout Group of regulators (4/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE＝ 6.49 (YEN)

Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
		3). curing	plain concrete	m3	13.4		12.92			173.37		1,125	
		4). formwork	for small structure	m2	474.3		355.10			168,431.08		1,093,118	
		5). placing plain concrete	18N/mm2 by man power	m3	72.5		1,109.76			80,417.59		521,910	
		6). curing	small structure	m3	72.5		30.22			2,189.86		14,212	
		7). gravel for under concrete	t=100mm	m2	18.8		99.31			1,865.73		12,109	
		8). joint filler	expansion joint	m2	7.2		45.20			327.53		2,126	
	sum									284,507.75		1,846,455	
	8. concrete stair	1). form for lean concrete		m2	16.9		209.60			3,535.78		22,947	
		2). placing lean concrete	18N/mm2 by crane	m3	8.4		1,479.36			12,417.03		80,587	
		3). curing	plain concrete	m3	8.4		12.92			108.44		704	
		4). formwork	reinforced concrete	m2	118.6		400.74			47,509.37		308,336	
		5). placing concrete	25N/mm2(opc)	m3	31.0		1,356.29			42,068.86		273,027	
		6). curing	reinforced concrete	m3	31.0		7.83			242.86		1,576	
		7). gravel for under concrete	t=100mm	m2	12.5		99.31			1,243.54		8,071	
		8). bending,cutting and placing for re-bar	D12	t	0.4		18,857.16			7,970.69		51,730	
	sum									115,096.57		746,977	
sub total										9,734,042.76		63,173,938	
A-9-2. Bridge works	1. concrete work	1). formwork	reinforced concrete	m2	1,696.3		400.74			679,775.92		4,411,746	
		2). placing concrete	25N/mm2(opc)	m3	548.9		1,356.29			744,406.81		4,831,200	
		3). curing	reinforced concrete	m3	548.9		7.83			4,297.53		27,891	
		4). bending,cutting and placing for re-bar	D12	t	105.1		18,857.16			1,981,642.37		12,860,859	
		5). pipe support falsework	not greater than 4t/m2	m3	6,121.3		144.07			881,888.48		5,723,456	
		6). Styrofoam	t=20～150mm	m3	14.0			26,190			366,607	366,607	
	sum									4,292,011.11	366,607	28,221,759	
	2. shoe	1). rubber bearing	330×150×40	nos	20.0			11,760			235,200	235,200	
			330×300×40	nos	40.0			23,590			943,600	943,600	
			150×10,000×20	nos	2.0			108,780			217,560	217,560	
			300×10,000×20	nos	5.0			217,560			1,087,800	1,087,800	
		2). corrosion-proof anchor	Fixed, F25D	nos	12.0			6,930			83,160	83,160	
			Movable, M25D	nos	20.0			8,260			165,200	165,200	
			for F25D	nos	12.0			1,190			14,280	14,280	
			for M25D	nos	20.0			2,940			58,800	58,800	
	sum										2,805,600	2,805,600	
	3. steel expansion joint	1). expansion joint (brof joint)	displacement⊿=20mm	m	24.2		232.34	35,190		5,622.62	851,598	888,089	
		2). expansion joint (brof joint)	displacement⊿=35mm	m	96.8		232.34	55,800		22,490.51	5,401,440	5,547,403	
		3). Anchor bar	D12	t	0.6		11,442.00			7,029.08		45,619	
	sum									35,142.21	6,253,038	6,481,111	
	4. balustrade for bridge	1). balustrade	h=1.100	m	165.2		1,212.12			200,242.22		1,299,572	
		2). Anchor bar	D12	t	0.6		11,442.00			7,029.08		45,619	
	sum									207,271.30		1,345,191	
sub total										4,534,424.62	9,425,245	38,853,661	
A-9-3. Approach slab	1. concrete work	1). formwork	reinforced concrete	m2	96.0		400.74			38,471.04		249,677	
		2). placing concrete	25N/mm2(opc)	m3	160.0		1,356.29			217,006.40		1,408,372	
		3). curing	reinforced concrete	m3	160.0		7.83			1,252.80		8,131	
		4). bending,cutting and placing for re-bar	D22	t	14.2		17,805.74			253,553.73		1,645,564	
		5). Anchor cap	SGP φ40×80	nos	200.0		67.00			13,400.00		86,966	
		6). Anchor bar	D22×500×200nos	t	0.3		11,442.00			3,478.36		22,575	
		7). joint filler	expansion joint	m2	34.4		45.20			1,554.88		10,091	
	sum									528,717.21		3,431,375	
	2. shoe	1). rubber shoe	t=30mm	m2	24.0			166,050			3,985,200	3,985,200	
sub total										528,717.21	3,985,200	7,416,575	
A-9-4. Accessory works around regulator	1. accessory work for gate	1). formwork for post-placing concrete	reinforced concrete	m2	1,248.8		400.74			500,448.11		3,247,908	
		2). post-placing concrete	25N/mm2(src, night time)	m3	340.2		1,446.03			491,953.86		3,192,781	
		3). post-placing concrete	25N/mm2(opc)	m3	7.5		1,356.29			10,185.73		66,105	
		4). curing	for post-placing concrete	m3	347.7		7.83			2,722.64		17,670	
		5). joint bar	D22	t	2.9		11,442.00			33,457.14		217,137	
		6). installation for joint bar	D22	nos	7,900.0		83.45			659,255.00		4,278,565	
	sum									1,698,022.48		11,020,166	
	2. hydraulic pipe pit works	1). form for lean concrete		m2	9.1		209.60			1,909.45		12,392	

Project for Construction of the New Dirout Group of regulators (5/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE = 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price			Amount			Exchange to YEN	Remarks
							US$	LE	YEN	US$	LE	YEN		
			2). placing lean concrete	18N/mm2 by crane	m3	10.5		1,479.36			15,562.86		101,003	
			3). curing	plain concrete	m3	10.5		12.92			135.91		882	
			4). formwork	reinforced concrete	m2	374.7		400.74			150,169.30		974,599	
			5). placing concrete	25N/mm2(opc)	m3	85.8		1,356.29			116,383.24		755,327	
			6). curing	reinforced concrete	m3	85.8		7.83			671.89		4,361	
			7). bending,cutting and placing for re-bar	D22	t	8.5		17,805.74			151,687.09		984,449	
			8). scaffolding	not less than 4m	m2	160.1		161.52			25,865.81		167,869	
			9). pipe support falsework	not greater than 4t/m2	m3	92.0		144.07			13,250.11		85,993	
			10). water stop	w=300mm	m	16.8		37.54	2,214		630.67	37,195	41,288	
			11). joint filler	expansion joint	m2	5.1		45.20			231.87		1,505	
			12). joint filler	construction joint	m2	0.6		403.70			250.29		1,624	
			13). checker plate	t=3.2mm	m2	1.0		349.41			342.41		2,222	
				t=4.5mm	m2	18.8		476.12			8,946.24		58,061	
			14). Anchor bar	D16	t	0.0		11,442.00			57.11		371	
			15). installation for hydraulic pipe	SUS 32A	m	4,004.0		75.50			302,302.00		1,961,940	
		sum									788,396.25	37,195	5,153,887	
		3. steel stairs	1). steel stairs		L.S	2.0		129,944.00			259,888.00		1,686,673	
			2). foundation for support		L.S	2.0		14,774.67			29,549.34		191,775	
		sum									289,437.34		1,878,448	
		4. installation for grating		IB, 44×5×3	m2	227.8		232.34	18,090		52,936.34	4,121,625	4,465,182	
		5. installation for handrail		H=1.1m	m	563.2		1,395.28			785,821.69		5,099,983	
		6. crane facility	1). chain block	manual operation, 5t	L.S	2.0		32,157.16			64,314.32		417,400	
			2). rail	I 300x150x10x18.5	t	1.1		15,692.00			16,711.98		108,461	
		sum									81,026.30		525,861	
		7. installation for steel steps	b=300mm		nos	765.0		370.65			283,547.25		1,840,222	
		8. staff gauge			m	65.2		1,664.10			108,416.02		703,620	
		9. gate lighting	1). high pressure mercury lamp	400W	nos	6.0		5,075.00			30,450.00		197,621	
			2). installation for gate lighting		nos	6.0		18,533.63			111,201.78		721,700	
		sum									141,651.78		919,320	
		10. water level detector	1). water level detector	DC4-20A	nos	13.0		34,927.58			454,058.55		2,946,840	
			2). installation for water level detector		nos	13.0		2,744.00			35,672.00		231,511	
		sum									489,730.55		3,178,351	
	sub total										4,718,986.00	4,158,820	34,785,039	
total											19,516,170.59	17,569,265	144,229,212	
A-10. Electric works	A-10-1. installation for facilities of receiving po	1. Installation for power receiving and distribut	1). installation for power receiving and distribution panel		nos	1.0		3,388.00			3,388.00		21,988	
			2). emergency generator with panel	80kVA, 3phase 4wire	nos	1.0			8,650,000			8,650,000	8,650,000	
			3). installation for backup generator		nos	1.0		33,246.50			33,246.50		215,770	
			4). transformer	three phase100KVA	nos	1.0		211,500.00			211,500.00		1,372,635	
	sub total										248,134.50	8,650,000	10,260,393	
	A-10-2. Installation for electric cable and wire	1. electric cable and wire	1). electric cable											
			CV 3.5sq -2C		m	323.6		43.25			13,995.70		90,832	
			CV 8sq -2C		m	340.3		66.44			22,609.53		146,736	
			CV 14sq -2C		m	40.0		92.29			3,691.60		23,958	
			CV 22sq -2C		m	20.0		124.83			2,496.60		16,203	
			CV 2sq -3C		m	64.5		41.83			2,698.03		17,510	
			CV 5.5sq -3C		m	268.6		71.80			19,285.48		125,163	
			CV 8sq -3C		m	458.6		87.30			40,035.78		259,832	
			CV 14sq -3C		m	820.4		123.72			101,499.88		658,734	
			CV 22sq -3C		m	125.8		168.44			21,189.75		137,521	
			CV 38sq -3C		m	225.2		254.94			57,412.48		372,607	
			CV 8sq -4C		m	20.0		110.31			2,206.20		14,318	
			CV 38sq -4C		m	30.0		327.64			9,829.20		63,792	
			CVV 2sq -4C		m	5.0		52.36			261.80		1,699	
			CVV 2sq -5C		m	969.3		63.91			61,947.96		402,042	
			CVV 2sq -8C		m	919.8		86.62			79,673.07		517,078	
			CVV 2sq -10C		m	74.5		106.68			7,947.66		51,580	
			CVV 2sq -20C		m	785.2		191.53			150,389.35		976,027	
			CVV 2sq -30C		m	4,164.6		253.71			1,056,600.66		6,857,338	
			CVVS 2sq -2C		m	451.5		47.59			21,486.88		139,450	

Project for Construction of the New Dirout Group of regulators (6/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
			CVVS 2sq -10C		m	497.6		124.83			62,115.40		403,129	
			CVVS 2sq -15C		m	113.8		174.84			19,896.79		129,130	
			CVVS 2sq -30C		m	910.4		272.75			248,311.60		1,611,542	
			2). electric wire											
			IV 3.5sq		m	819.6		25.93			21,252.22		137,927	
			IV 5.5sq		m	95.1		29.50			2,805.45		18,207	
			IV 8sq		m	1,050.8		36.46			38,312.16		248,646	
			IV 14sq		m	351.0		52.56			18,448.56		119,731	
			IV 22sq		m	30.0		69.60			2,088.00		13,551	
			CPEV 0.9mm -3P		m	1,521.8		48.34			73,563.81		477,429	
			3). conduits											
			FEP 30		m	576.6		72.87			42,016.84		272,689	
			FEP 40		m	990.8		83.30			82,533.64		535,643	
			FEP 50		m	45.8		96.10			4,401.38		28,565	
			FEP 65		m	155.8		114.00			17,761.20		115,270	
			FEP 80		m	762.8		139.03			106,052.08		688,278	
			FEP 100		m	613.2		188.15			115,373.58		748,775	
			FEP 125		m	474.8		232.23			110,262.80		715,606	
			G 28		m	285.2		163.84			46,727.16		303,259	
			G 36		m	458.9		201.06			92,266.43		598,809	
		sum									2,779,446.71		18,038,609	
		2. earth work	excavasion and backfill		m3	32.0		116.67			3,733.44		24,230	
		3. handhole	900×900×900		nos	32.0		18,600.65			595,220.80		3,862,983	
	sub total										3,378,400.95		21,925,822	
total											3,626,535.45	8,650,000	32,186,215	
A-11. Gate manufactures and works	A-11-1. gate manufacture	1. Gate manufacture	1). double stage roller gate	h=1.100										
			gate leaf	6.0×6.55	L.S	2.0			157,655,000			315,310,000	315,310,000	
			gate guide		L.S	2.0			132,187,000			264,374,000	264,374,000	
			hoisting device	hydraulic	L.S	2.0			410,835,000			821,670,000	821,670,000	
			remote operation system		L.S	2.0			110,893,000			221,786,000	221,786,000	
			2). slide gate	small gate										
			for Badraman	2.0×2.65, including hoist	L.S	2.0		461,044.07			922,088.13		5,984,352	
			for Diroutiah	2.0×2.35, including hoist	L.S	3.0		461,044.07			1,383,132.20		8,976,528	
			for Abo Gabal	2.0×2.95, including hoist	L.S	4.0		499,464.41			1,997,857.62		12,966,096	
			for Sahelyia	2.0×3.55, including hoist	L.S	2.0		527,406.47			1,054,812.94		6,845,736	
			3). stop log											
			for large regulator	Type-A×2、Type-B×8	L.S	2.0		2,368,089.98			4,736,179.96		30,737,808	
			for asmall regulator	Type-A×2、Type-B×7	L.S	2.0		1,128,160.86			2,256,321.72		14,643,528	
		sum									12,350,392.57	1,623,140,000	1,703,294,048	
	A-11-2. installation for gate facilities	1. Installation for manufactures	1). installation for gate	for gate, gate guide, hoist	L.S	1.0		5,372,924.63			5,372,924.63		34,870,281	
			2). installation for stop log	for gate guide, crane	L.S	1.0		1,351,345.63			1,351,345.63		8,770,233	
			3). control panel for gate operation											
			remote operation panel		nos	1.0		6,860.00			6,860.00		44,521	
			4). Japanese mechanical engineer for gate		day	1,050.0			22,154			23,261,700	23,261,700	
			5). Japanese electrical engineer for gate		day	1,050.0			24,698			25,932,900	25,932,900	
		sum									6,731,130.26	49,194,600	92,879,635	
total											19,081,522.83	1,672,334,600	1,796,173,683	
A-12. Expense of the machine and facilities	A-12-1. Expense of the machine and facilities	1. Rent fee for heavy equipment	1-1. rent in Egypt											
			1). rough terrain crane	25t	day	1,410.0		3,194.17			4,503,775.00		29,229,500	
			2). truck with crane	4t/2.9t	day	1,350.0		1,927.50			2,602,125.00		16,887,791	
			3). Truck	11t	day	1,350.0		1,591.67			2,148,750.00		13,945,388	
			4). Truck mixer	4.4m3	day	1,260.0		2,150.00			2,709,000.00		17,581,410	
			5). Truck mixer	4.4m3	day	1,230.0		2,150.00			2,644,500.00		17,162,805	
			6). Truck mixer	4.4m3	day	915.0		2,150.00			1,967,250.00		12,767,453	
			7). Truck mixer	4.4m3	day	450.0		2,150.00			967,500.00		6,279,075	
			8). cement silo	50t	day	1,290.0		1,595.83			2,058,625.00		13,360,476	
			9). Wheel Loader	2.1m3	day	400.0		2,030.83			812,333.33		5,272,043	
			1-2. rent in Japan											
			1). Batching plant	30m3/h	LS	1.0	221,309.66			221,309.66			25,083,237	

Project for Construction of the New Dirout Group of regulators (7/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE = 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
			2). Vibration hunmer (1)	Hydraulic, 232KW	day	1,507.0			21,100			31,797,700	31,797,700	
			3). Vibration hunmer (2)	Hydraulic, 232KW	day	367.0			21,100			7,743,700	7,743,700	
			4). Water jet	14.7Mpa 325L/min	day	1,507.0			9,370			14,120,590	14,120,590	
		sum								221,309.66	20,413,858.33	53,661,990	211,231,167	
		2. Operator wage	rent in Egypt											
			1). rough terrain crane	25t	day	1,058.0		435.00			460,230.00		2,986,893	
			2). truck with crane	4t/2.9t	day	1,013.0		435.00			440,655.00		2,859,851	
			3). Truck	11t	day	1,013.0		435.00			440,655.00		2,859,851	
			4). Truck mixer	4.4m3	day	945.0		435.00			411,075.00		2,667,877	
			5). Truck mixer	4.4m3	day	923.0		435.00			401,505.00		2,605,767	
			6). Truck mixer	4.4m3	day	687.0		435.00			298,845.00		1,939,504	
			7). Truck mixer	4.4m3	day	338.0		435.00			147,030.00		954,225	
		sum									2,599,995.00		16,873,968	
		3. Fuel fee	rent in Egypt											
			1). rough terrain crane	25t	Lit	122,696.2		2.00			245,392.40		1,592,597	
			2). truck with crane	4t/2.9t	Lit	39,091.6		2.00			78,183.20		507,409	
			3). Truck	11t	Lit	61,620.7		2.00			123,241.40		799,837	
			4). Truck mixer	4.4m3	Lit	57,900.1		2.00			115,800.20		751,543	
			5). Truck mixer	4.4m3	Lit	56,552.2		2.00			113,104.40		734,048	
			6). Truck mixer	4.4m3	Lit	42,092.4		2.00			84,184.80		546,359	
			7). Truck mixer	4.4m3	Lit	20,709.2		2.00			41,418.40		268,805	
		sum									801,324.80		5,200,598	
total										221,309.66	23,815,178.13	53,661,990	233,305,733	
B. Temporary Works										3,192,139.21	88,433,278.12	262,773,263	**1,198,502,296**	
B-1. Temporary Coffer Dam	B-1-1. Double Sheet Pile	1. Double sheet pile	1). driving sheet pile	PU28+1, L≦15m (driving length)	sheet			1,730.41						
				PU28+1, L≦12m (driving length)	sheet	1,462.0		1,466.45			2,143,949.90		13,914,235	
				PU28+1, L≦9m (driving length)	sheet			1,173.16						
				PU28+1, L≦6m (driving length)	sheet	640.0		939.18			601,075.20		3,900,978	
				PU28+1, L≦4m (driving length)	sheet	80.0		763.21			61,056.80		396,259	
			2). Sheet pile press fitting	PU, L≦9m (driving length)	sheet			103.68	3,280					
			3). Mobilization & demobilization	press fitting machine for sheet pile	nos			700.36	19,332					
			4). material fee for sheet pile	PU28+1	t	1,907.6	440.50			840,284.40			95,237,834	
			5). material fee for sheet pile	PU28+1, near rail way	t		881.00							
			6). installation for tie-rod and waling		t	293.9		3,311.13			972,988.79		6,314,697	
			7). material fee for tie-rod (NHT690)	φ75 L=8.9m 2pcs/rod	nos	210.0			151,065			31,723,650	31,723,650	
				φ75 L=10.0m 2pcs/rod	nos	29.0			167,850			4,867,650	4,867,650	
				φ32 L=6.8m 2pcs/rod	nos	40.0			25,470			1,018,800	1,018,800	
				φ32 L=8.0m 2pcs/rod	nos	31.0			29,385			910,935	910,935	
				φ28 L=4.5m 2pcs/rod	nos				16,020					
				φ28 L=5.5m 2pcs/rod	nos				18,495					
				φ28 L=7.6m 2pcs/rod	nos				24,345					
				φ28 L=8.5m 2pcs/rod	nos				26,820					
			8). material fee for waling	H300未満	t	106.6		7,846.00			836,383.60		5,428,130	
			9). sheet pile welding	on site	nos	1,662.0		1,944.85			3,232,340.70		20,977,891	
			10). removing sheet pile	L≦15m (removing length)	nos			658.61						
				L≦12m (removing length)	nos	1,462.0		572.16			836,497.92		5,428,872	
				L≦9m (removing length)	nos			486.33						
				L≦6m (removing length)	nos	640.0		428.48			274,227.20		1,779,735	
				L≦4m (removing length)	nos	80.0		371.90			29,752.00		193,090	
			11). driving bearing pile	H150, L≦4m (driving length)	nos			615.91						
				H250, L≦4m (driving length)	nos			673.91						
			12). removing bearing pile	L≦4m (removing length)	nos			371.90						
			13). material fee for bearing pile		t			7,846.00						
			14). Japanese sheet pile operator A		day	2,190.0			27,030			59,195,700	59,195,700	
			15). Japanese sheet pile operator B		fay	480.0			27,030			12,974,400	12,974,400	
	sub total									840,284.40	8,988,272.11	110,691,135	264,262,855	
	B-1-2. Earth work	1. earth work	1). backfill	inside coffer dam	m3	29,986.8		37.90			1,136,499.72		7,375,883	
			2). backfill material fee	sand	m3	40,458.0		67.10			2,714,731.80		17,618,609	
			3). transportation fee for buying material											

Project for Construction of the New Dirout Group of regulators (8/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
			excavation and loading	0.8m3 back hoe loose soil	m3	40,458.0		19.22			777,602.76		5,046,642	
			transportation by damp truck	Distance 20km	m3	40,458.0		135.51			5,482,463.58		35,581,189	
	sub total										10,111,297.86		65,622,323	
total										840,284.40	19,099,569.97	110,691,135	329,885,178	
B-2. Single Sheet Pile	B-2-1. Single Sheet Pile	1. Single Sheet Pile	1). driving sheet pile	PU28+1, L≦15m (driving length)	sheet	200.0		1,730.41			346,082.00		2,246,072	
				PU28+1, L≦12m (driving length)	sheet			1,466.45						
				PU28+1, L≦9m (driving length)	sheet			1,173.16						
				PU28+1, L≦6m (driving length)	sheet	232.0		939.18			217,889.76		1,414,105	
				PU28+1, L≦4m (driving length)	sheet	467.0		763.21			356,419.07		2,313,160	
			2). Sheet pile press fitting	PU, L≦9m (driving length)	sheet	195.0		103.68	3,280		20,217.60	639,600	770,812	
			3). Mobilization & demobilization	press fitting machine for sheet pile	nos	1.0		700.36	19,332		700.36	19,332	23,877	
			4). material fee for sheet pile	PU28+1	t	663.3	440.50			292,188.54			33,116,649	
			5). material fee for sheet pile	PU28+1, near rail way	t	165.7	881.00			145,981.70			16,545,566	
			6). installation for tie-rod and waling		t	47.7		3,311.13			157,940.90		1,025,036	
			7). material fee for tie-rod (NHT690)	φ75 L=8.9m 2pcs/rod	nos				151,065					
				φ75 L=10.0m 2pcs/rod	nos				167,850					
				φ32 L=6.8m 2pcs/rod	nos				25,470					
				φ32 L=8.0m 2pcs/rod	nos				29,385					
				φ28 L=4.5m 2pcs/rod	nos	76.0			16,020			1,217,520	1,217,520	
				φ28 L=5.5m 2pcs/rod	nos	76.0			18,495			1,405,620	1,405,620	
				φ28 L=7.6m 2pcs/rod	nos	51.0			24,345			1,241,595	1,241,595	
				φ28 L=8.5m 2pcs/rod	nos	68.0			26,820			1,823,760	1,823,760	
			8). material fee for waling		t	26.7		7,846.00			209,488.20		1,359,578	
			9). sheet pile welding	on site	nos	200.0		1,944.85			388,970.00		2,524,415	
			10). removing sheet pile	L≦15m (removing length)	nos	200.0		658.61			131,722.00		854,876	
				L≦12m (removing length)	nos			572.16						
				L≦9m (removing length)	nos			486.33						
				L≦6m (removing length)	nos	232.0		428.48			99,407.36		645,154	
				L≦4m (removing length)	nos	467.0		371.90			173,677.30		1,127,166	
			11). driving bearing pile	H150, L≦4m (driving length)	nos	227.0		615.91			139,811.57		907,377	
				H250, L≦4m (driving length)	nos	46.0		673.91			30,999.86		201,189	
			12). removing bearing pile	L≦4m (removing length)	nos	273.0		371.90			101,528.70		658,921	
			13). material fee for bearing pile		t	53.0		7,846.00			415,445.70		2,696,243	
total										438,170.24	2,790,300.38	6,347,427	74,118,691	
B-3. Temporary bridge	B-3-1. Temporary bridge	1. pile driving	1). driving H-beam	H400, L≦12m (driving length)	piece	139.0		2,083.01			289,538.39		1,879,104	
				H400, L≦9m (driving length)	piece			1,641.77						
				H350, L≦12m (driving length)	piece	45.0		1,730.41			77,868.45		505,366	
				H350, L≦9m (driving length)	piece	148.0		1,407.14			208,256.72		1,351,586	
				H300, L≦6m (driving length)	piece	55.0		880.52			48,428.60		314,302	
			2). removing H-beam	L≦12m (removing length)	piece	184.0		572.16			105,277.44		683,251	
				L≦9m (removing length)	piece	148.0		486.33			71,976.84		467,130	
				L≦6m (removing length)	piece	55.0		428.48			23,566.40		152,946	
			3). material fee for H-beam	exclude re-used material	t	634.4			33,300			21,123,855	21,123,855	
		sum									824,912.84	21,123,855	26,477,539	
		2. substructure	1). installation for substructure		t	46.7		5,381.06			251,295.50		1,630,908	
			2). removal for substructure		t	46.7		2,884.85			134,722.49		874,349	
			3). material fee for substructure		t	25.6		7,846.00			200,857.60		1,303,566	
		sum									586,875.59		3,808,823	
		3. deck plate	1). installation for deck plate		m2	3,700.0		201.95			747,215.00		4,849,425	
			2). removal for deck plate		m2	3,700.0		103.28			382,136.00		2,480,063	
			3). material fee for deck plate	exclude re-used material	m2	1,916.5			11,700			22,423,160	22,423,160	
		sum									1,129,351.00	22,423,160	29,752,648	
		4. superstructure	1). installation for superstructure		t	468.1		2,736.49			1,280,950.96		8,313,372	
			2). removal for superstructure		t	468.1		1,511.24			707,411.44		4,591,100	
			3). material fee for superstructure	exclude re-used material	t	264.3			33,300			8,801,190	8,801,190	
		sum									1,988,362.40	8,801,190	21,705,662	
		5. guard pipe	1). installation for bridge railing		m	1,164.0		22.56			26,259.84		170,426	
			2). removal for bridge railing		m	1,164.0		12.88			14,992.32		97,300	
			3). material fee for bridge railing	@1.8m	nos	374.0			2,876			1,075,437	1,075,437	

Project for Construction of the New Dirout Group of regulators (9/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
		sum									41,252.16	1,075,437	1,343,164	
		6. stage end	1). installation/removal for stage end	steel plate	m2	317.0		95.64			30,319.78		196,775	
			2). material fee for stage end	steel plate	nos	59.1		6,357.00			375,712.96		2,438,377	
		sum									406,032.74		2,635,152	
total											4,976,786.73	53,423,642	85,722,988	
B-4. Dewatering	B-4-1. Dewatering	1. water pump	1). dewatering by water pump	φ50mm	day･nos	780.0		1,334.29			1,040,746.20		6,754,443	
			2). installation and removal for water pump		nos	8.0		1,238.60			9,908.80		64,308	
		sum									1,050,655.00		6,818,751	
		2. Wellpoint	1). installation/removal for wellpoint	121pcs×2 (Bahr-Yusef, Ibrahimia)	L.S	2.0		221,667.00			443,334.00		2,877,238	
			2). daily operation and control		day	803.0		11,000.00			8,833,000.00		57,326,170	
			3). fuel		Lit	96,360.0		2.00			192,720.00		1,250,753	
		sum									9,469,054.00		61,454,160	
total											10,519,709.00		68,272,911	
B-5. Temporary road & preparation	B-5-1. temporary road	1. temporary road	1). embankment		m3	21,331.2		37.90			808,452.48		5,246,857	
			2). material fee for temporary road	sand	m3	25,270.0		67.10			1,695,617.00		11,004,554	
			3). transportation fee for buying material											
			excavation and loading	0.8m3 back hoe loose soil	m3	25,270.0		19.22			485,689.40		3,152,124	
			transportation by damp truck	Distance 20km	m3	25,270.0		135.51			3,424,337.70		22,223,952	
			4). transportation fee for reused material											
			excavation and loading	0.8m3 back hoe loose soil	m3	2,016.0		19.22			38,747.52		251,471	
			transportation by damp truck	Distance 0.3km	m3	2,016.0		18.47			37,235.52		241,659	
			5). exsiting structure demolition	plain concrete	m3	3,089.3		224.59			693,825.88		4,502,930	
			6). breaked concrete disposal	Distance 20km	m3	3,089.3		194.01			599,355.09		3,889,815	
total											7,783,260.59		50,513,361	
B-6. diversion works	B-6-1. diversion works	1. diversion works	1). river side slope excavation	0.8m3 back hoe	m3	6,281.0		19.82			124,489.42		807,936	
			2). river bed excavation	0.4m3 long arm back hoe	m3	5,089.6		46.86			238,498.65		1,547,856	
			3). excavated soil disposal	Distance 20km	m3	11,370.6		159.33			1,811,677.69		11,757,788	
			4). stone riprap	for rever bed	m3	2,093.0		766.83			1,604,975.19		10,416,289	
			5). Barge	Bahr Yusef:60×10=600m2	day	100.0		50,400.00			5,040,000.00		32,709,600	
				Ibrahimia:35×10=350m2	day	100.0		29,400.00			2,940,000.00		19,080,600	
total											11,759,640.95		76,320,070	
B-7. Other temporary works	B-7-1. Temporary yard preparation	1. Temporary yard preparation	1). spreading gravel		m2	21,000.0		132.78			2,788,380.00		18,096,586	
			2). removal for gravel		m3	4,200.0		28.32			118,944.00		771,947	
			3). excavated soil disposal	distance 30km	m3	4,200.0		159.33			669,186.00		4,343,017	
			4). temporary fence	H=2.0m	m	1,860.0		1,083.00			2,014,380.00		13,073,326	
	sub total										5,590,890.00		36,284,876	
	B-7-2. Foudation improvement work	1. Foudation improvement work	1). embankment		m3	2,676.1		45.37			121,414.65		787,981	
			2). material fee for embankment	sand	m3	3,380.0		67.10			226,798.00		1,471,919	
			3). transportation fee for buying material											
			excavation and loading	0.8m3 back hoe loose soil	m3	3,380.0		19.22			64,963.60		421,614	
			transportation by damp truck	Distance 20km	m3	3,380.0		135.51			458,023.80		2,972,574	
			4). soil improvement	cement mixing	m3	3,189.0		123.60			394,160.40		2,558,101	
			5). installation for steel plate		m2	882.0		3.11			2,743.02		17,802	
			6). removal for steel plate		m2	882.0		2.46			2,169.72		14,081	
			7). material fee for steel plate	1.5m × 3.0m, t=22mm	nos	196.0		3,178.50			622,986.00		4,043,179	
	sub total										1,893,259.19		12,287,252	
	B-7-3. Batching plant facility	1. Batching plant facility	1). assembling and removal for batching plant		L.S	1.0		109,080.79			109,080.79		707,934	
			2). assembling and removal for cement silo		L.S	1.0		57,566.61			57,566.61		373,607	
			3). installation and removal for concrete aggregate yard		L.S	1.0		81,493.48			81,493.48		528,893	
	sub total										248,140.88		1,610,434	
	B-7-4. utility costs	1. Receiving power facilities	1). receiving power equipment		L.S	1.0		8,550.00			8,550.00		55,490	
			2). installation		L.S	1.0		4,918.48			4,918.48		31,921	
			3). foundation concrete	18N/mm2	m3									
			4). foundation gravel		m2	15.0		99.31			1,485.67		9,642	
			5). lean concrete		m3	1.3		1,257.46			1,690.02		10,968	
			6). formwork		m2	4.2		400.74			1,683.10		10,923	
			7). placing concrete	18N/mm2	m3	3.6		1,109.76			3,995.13		25,928	
			8). curing		m3	3.6		12.92			46.51		302	
			9). other materials	0.2% of facilities cost	%	0.2		8,550.00			1,710.00		11,098	

Project for Construction of the New Dirout Group of regulators (10/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE＝ 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
		sum									24,078.91		156,272	
		2. electricity facilities	1). electric cable	600V 22mm2-3C	m	2,100.0		179.00			375,900.00		2,439,591	
			2). distribution board	75A-150A	nos	18.0		6,990.00			125,820.00		816,572	
			3). switching board		nos	1.0		5,500.00			5,500.00		35,695	
			4). installation for cable		day･nos	12.0		341.00			4,092.00		26,557	
			5). excavation		m3	585.0		154.56			90,417.60		586,810	
			6). backfill		m3	585.0		88.49			51,766.65		335,966	
		sum									653,496.25		4,241,191	
		3. water facilities	1). well	30m × 1piece	m	30.0								
			2). pump for well		nos	2.0		15,000.00			30,000.00		194,700	
			3). distribution pipe	φ50mm	m	226.0		316.00			71,416.00		463,490	
				φ25mm	m	46.5		136.00			6,324.00		41,043	
			4). valve	φ50mm	nos	5.0		307.00			1,535.00		9,962	
				φ25mm	nos	5.0		307.00			1,535.00		9,962	
			5). bibb cock		nos	7.0		1,491.00			10,437.00		67,736	
		sum									121,247.00		786,893	
		4. electricity connection fee			L.S	1.0		50,000.00			50,000.00		324,500	
		5. electric fee			Kwh	1,596,072.5		2.00			3,192,145.04		20,717,021	
	sub total										4,040,967.20		26,225,877	
	B-7-5. site expense	1. transportation fee for heavy construction equipment	1). Track crane	80t × 10 nos	t	800.0		550.00			440,000.00		2,855,600	
		Cairo - Dirout	2). Track crane	25t × 2 nos	t	50.0		550.00			27,500.00		178,475	
			2). Crawler crane	50t × 16 nos	t	800.0		550.00			440,000.00		2,855,600	
		sum									907,500.00		5,889,675	
		2. vehicle for site management	1). vehicle A	sedan	nos	180.0		15,750.00			2,835,000.00		18,399,150	
		including driver and fuel	2). vehicle B	pick-up	nos	142.0		18,749.00			2,662,358.00		17,278,703	
		sum									5,497,358.00		35,677,853	
		3. oversea travel cost	1). project manager		time	10.0			248,000			2,480,000	2,480,000	
			2). chief civil engeneer		time	10.0			248,000			2,480,000	2,480,000	
			3). civil engeneer 1		time	10.0			248,000			2,480,000	2,480,000	
			4). civil engeneer 2		time	10.0			248,000			2,480,000	2,480,000	
			5). architecture		time	3.0			248,000			744,000	744,000	
			6). mechanical engineer		time	8.0			248,000			1,984,000	1,984,000	
			7). electrical engineer		time	8.0			248,000			1,984,000	1,984,000	
			8). administrator		time	10.0			248,000			2,480,000	2,480,000	
		sum										17,112,000	17,112,000	
	sub total										6,404,858.00	17,112,000	58,679,528	
total											18,178,115.27	17,112,000	135,087,968	
B-8. Transpotation / Shipment	for civil work	B-8-1. packing	1). construction material for civil work	728.3 F/T	L.S	1.0			5,665,521			5,665,521	5,665,521	
			2). steel material for civil work	58.3 F/T	L.S	1.0			563,587			563,587	563,587	
		sum										6,229,108	6,229,108	
		B-8-2. loading	1). custom fee		L.S	2.0			5,900			11,800	11,800	
			2). loading	construction material for civil work	F/T	728.3			5,500			4,005,897	4,005,897	
				steel material for civil work	F/T	58.3			5,500			320,430	320,430	
			3). documentation		L.S	2.0			20,000			40,000	40,000	
		sum										4,378,127	4,378,127	
		B-8-3. ocean transpotation	1). construction material for civil work		F/T	728.3	180.00			131,102.10			14,859,112	
			2). steel material for civil work		F/T	58.3	180.00			10,486.83			1,188,577	
		sum								141,588.93			16,047,689	
		B-8-4. port charge	1). port charge		F/T	786.6		148.00			116,417.56		755,550	
			2). trust money for entry		F/T	786.6		60.00			47,196.31		306,304	
		sum									163,613.87		1,061,854	
		B-8-5. inland transpotation	1). inland transpotation	for permanent work	F/T	786.6		667.00			524,665.65		3,405,080	
				work)	F/T	944.6		667.00			630,061.93		4,089,102	
		sum									1,154,727.58		7,494,182	
		B-8-6. insurance	1). insurance	I = CIP × 1.1 × r	L.S	1.0	563.00	5,241.39	205,577	563.00	5,241.38	205,577	303,404	
		sum								563.00	5,241.38	205,577	303,404	
	sub total									142,151.93	1,323,582.83	10,812,812	35,514,364	
	for temporary work	B-8-7. packing	(from Japan to site)											
			1). material for temporary work	2,130.8 F/T	L.S	1.0			10,732,429			10,732,429	10,732,429	

Project for Construction of the New Dirout Group of regulators (11/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE= 6.49 (YEN)

Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
		2). steel material for temporary work	1,479.0 F/T	L.S	1.0			221,659			221,658	221,658	
		3). construction equipments	206.9 F/T	L.S	1.0			2,080,632			2,080,632	2,080,632	
		(from site to Japan)											
		1). material for temporary work	2,056.8 F/T	L.S	1.0			3,219,729			3,219,728	3,219,728	
		2). steel material for temporary work	1,428.6 F/T	L.S	1.0			66,498			66,497	66,497	
		3). construction equipment	186.9 F/T	L.S	1.0			624,190			624,189	624,189	
	sum										16,945,133	16,945,133	
	B-8-8. loading	(from Japan to site)											
		1). custom fee		L.S	3.0			5,900			17,700	17,700	
		2). loading	material for temporary work	F/T	2,130.8			5,500			11,719,516	11,719,516	
			steel material for temporary work	F/T	1,479.0			5,500			8,134,373	8,134,373	
			construction equipment	F/T	206.9			5,500			1,138,129	1,138,129	
		3). documentation		L.S	3.0			20,000			60,000	60,000	
		(from site to Japan)											
		1). custom fee		L.S	3.0			5,900			17,700	17,700	
		2). loading	material for temporary work	F/T	2,056.8		254.24			522,910.48		3,393,689	
			steel material for temporary work	F/T	1,428.6		254.24			363,203.38		2,357,190	
			construction equipment	F/T	186.9		254.24			47,525.22		308,439	
		3). documentation		L.S	3.0			20,000			60,000	60,000	
	sum									933,639.08	21,147,418	27,206,736	
	B-8-9. ocean transpotation	(from Japan to site)											
		1). material for temporary work		F/T	2,130.8	180.00			383,547.82			43,471,310	
		2). steel material for temporary work		F/T	1,479.0	180.00			266,215.86			30,172,906	
		3). construction equipment		F/T	206.9	180.00			37,247.86			4,221,672	
		(from site to Japan)											
		1). material for temporary work		F/T	2,056.8	180.00			370,220.62			41,960,805	
		2). steel material for temporary work		F/T	1,428.6	180.00			257,148.00			29,145,154	
		3). construction equipment		F/T	186.9	180.00			33,647.86			3,813,648	
		(from site to the third country)											
		1). material for steel sheet pile		F/T	2,736.6	90.00			246,292.26			27,914,765	
	sum								1,594,320.28			180,700,261	
	B-8-10. port charge	(from Japan to site)											
		1). port charge		F/T	3,816.7		148.00			564,876.16		3,666,046	
		2). trust money for entry		F/T	3,816.7		60.00			229,003.84		1,486,235	
		(from site to Japan)											
		1). port charge		F/T	3,672.3		148.00			543,502.44		3,527,331	
		2). trust money for entry		F/T	3,672.3		60.00			220,338.82		1,429,999	
	sum									1,557,721.26		10,109,611	
	B-8-11. inland transpotation	(from Alexandria to site)											
		1). inland transpotation	for temporary work	F/T	3,816.7		667.00			2,545,759.45		16,521,979	
			work)	F/T	2,736.6		667.00			1,825,299.32		11,846,193	
		(from site to Alexandria)											
		2). inland transpotation	for temporary work	F/T	3,672.3		667.00			2,449,433.31		15,896,822	
			imported sheet pile	F/T	2,736.6		667.00			1,825,299.32		11,846,193	
	sum									8,645,791.40		56,111,186	
	B-8-12. insurance	1). insurance (from Japan to Site)	I = CIP × 1.1 × r	L.S	1.0	2,731.00	13,277.55	1,979,481	2,731.00	13,277.55	1,979,481	2,375,184	
		2). insurance (from Site to Japan)	I = CIP × 1.1 × r	L.S	1.0	2,628.00	16,487.07	785,113	2,628.00	16,487.06	785,113	1,189,972	
	sum								5,359.00	29,764.61	2,764,594	3,565,155	
sub total									1,599,679.28	11,166,916.35	40,857,145	294,638,082	
for gate facilities	B-8-13. packing	1). gate facilities	951.0 F/T	L.S	1.0			9,448,061			9,448,061	9,448,061	
	sum										9,448,061	9,448,061	
	B-8-14. loading	1). custom fee		L.S	1.0			5,900			5,900	5,900	
		2). loading fee	Gate facilities	F/T	951.0			5,500			5,230,266	5,230,266	
		3). documennt fee		L.S	1.0			20,000			20,000	20,000	
	sum										5,256,166	5,256,166	
	B-8-15. ocean transpotation	1). gate facilities		F/T	951.0	180.00			171,172.36			19,400,675	
	sum								171,172.36			19,400,675	
	B-8-16. port charge	1). port charge		F/T	951.0		148.00			140,741.72		913,414	
		2). trust money for entry		F/T	951.0		60.00			57,057.45		370,303	

Project for Construction of the New Dirout Group of regulators (12/12)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE

5	Exchange Rate	1USD= 113.34 (YEN)	1EUR= 121.26 (YEN)	1LE = 6.49 (YEN)

	Work	Item	Grade	Detail	Unit	Quantity	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Exchange to YEN	Remarks
		sum									197,799.17		1,283,717	
		B-8-17. inland transpotation	1). inland transpotation		F/T	951.0		667.00			634,288.72		4,116,534	
		sum									634,288.72		4,116,534	
		B-8-18. insurance	1). insurance	I = CIP × 1.1 × r	L.S	1.0	681.00	3,308.17	8,824,875	681.00	3,308.16	8,824,875	8,923,529	
		sum								681.00	3,308.16	8,824,875	8,923,529	
	sub total									171,853.36	835,396.05	23,529,102	48,428,682	
total										1,913,684.57	13,325,895.23	75,199,059	378,581,128	
C. Building Works											3,399,700.00		**22,064,053**	
Building works		C-1. Control house			L.S	1.0		1,977,700.00			1,977,700.00		12,835,273	
		C-2. Local contrl house	Bahr Yusef		L.S	1.0		301,900.00			301,900.00		1,959,331	
		C-3. Local contrl house	Ibrahimia		L.S	1.0		301,900.00			301,900.00		1,959,331	
		C-4. Stop log room			L.S	1.0		818,200.00			818,200.00		5,310,118	
total											3,399,700.00		22,064,053	
D. Integrated Water Management System											31,628,443.83		**205,268,600**	
Integrated Water Management System	D-1. IWMS manufactures	1. IWMS manufactures	1). Gauging station	Type-A & B	L.S.	1.0		14,102,971.29			14,102,971.29		91,528,284	
			2). Central monitoring room	in Dirout	L.S.	1.0		1,387,148.88			1,387,148.87		9,002,596	
			3). Monitoring room	in Minia	L.S.	1.0		186,425.96			186,425.96		1,209,904	
	sub total										15,676,546.12		101,740,784	
.	D-2. Installation for IWMS	1. Installation for IWMS	1). installation for Gauging station	Type-A & B	L.S.	1.0		15,816,762.91			15,816,762.90		102,650,791	
			2). installation for Monitoring room	in Dirout and Minia	L.S.	1.0		135,134.81			135,134.81		877,025	
	sub total										15,951,897.71		103,527,816	
total											31,628,443.83		205,268,600	
E. Dispute Board										407,000.00			**46,129,380**	
Dispute Board	E-1. Dispute Board	1. regular Site Visit	1). Monthly Retainer Fee	US$3,000/day	month	45.0	3,000.00			135,000.00			15,300,900	
			2). Monthly Retainer Fee during DNP	US$2,000/day	month	12.0	2,000.00			24,000.00			2,720,160	
			3). Daily Fee	2day for Site Visit ×10nos	day	20.0	3,000.00			60,000.00			6,800,400	
				3day for travel ×10nos	day	30.0	3,000.00			90,000.00			10,200,600	
			4). Expenses	Air ticket, etc.	time	10.0	5,000.00			50,000.00			5,667,000	
		sum								359,000.00			40,689,060	
		2. supposed referrals	1). Additional Daily Fee		time	2.0	3,000.00			6,000.00			680,040	
			2). Reviewing Submission and Drafting Decision	(3+4 days)×2	time	14.0	3,000.00			42,000.00			4,760,280	
		sum								48,000.00			5,440,320	
total										407,000.00			46,129,380	
I-2 Indirect Cost					L.S	1.00				1,485,994.40	93,278,928.15	186,287,138	**960,089,987**	

E-8-3. Detail of the Project Cost Estimation

A SUMMARY of Civil Works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A	**Civil Works**										
											(YEN)
A-1	Excavation		1.0	L.S					4,438,016.50		28,802,727
A-2	Embankment		1.0	L.S					18,815,688.70		122,113,820
A-3	Demolition work		1.0	L.S					131,996.64		856,658
A-4	Sheet pile bank protection (include all works)		1.0	L.S				636,160	5,394,080.56	6,996,465	114,106,427
A-5	Rip rap bank protection		1.0	L.S					5,023,275.06	10,700,560	43,301,615
A-6	Canal bed protection		1.0	L.S				196,051	2,641,631.39		39,364,573
A-7	Concrete works for regulator		1.0	L.S					44,873,249.71	686,206	291,913,597
A-8	Foundation works for regulator (pile)		1.0	L.S					13,382,883.34		86,854,913
A-9	Road works		1.0	L.S					19,516,170.59	17,569,265	144,229,212
A-11	Electric works		1.0	L.S					3,626,535.45	8,650,000	32,186,215
A-12	Gate manufactures and works		1.0	L.S					19,081,522.83	1,672,334,600	1,796,173,683
A-13	Expense of the machine and facility		1.0	L.S				221,310	23,815,178.13	53,661,990	233,305,733
	Total							1,053,520	160,740,228.90	1,770,599,086	(YEN) 2,933,209,173

A-1 SUMMARY of Excavation

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-1	Excavation										
											(YEN)
A-1-1	Excavation		1.0	L.S					4,438,016.50		28,802,727
	Total								4,438,016.50		(YEN) 28,802,727

A-1-1 Excavation

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	excavation										
1)	excavation and loading	0.8m3 back hoe	23,390	m3		19.82			463,589.80		Breakdown No.201
2)	excavation for concrete basement	0.8m3 back hoe	1,320	m3		28.32			37,382.40		Breakdown No.203
2	excavated soil disposal	0.8m3 back hoe/loose									
1)	excavated soil disposal	Distance 20km	24,710	m3		159.33			3,937,044.30		Breakdown No.234
	Total								4,438,016.50		(YEN) 28,802,727

A-2 SUMMARY of Embankment

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-2	Embankment										
											(YEN)
A-2-1	Embankment		1.0	L.S					18,815,688.70		122,113,820
	Total								18,815,688.70		(YEN) 122,113,820

A-2-1 Embankment

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Embankment										
1)	backfill 1	15t bulldozer	76,490	m3		37.90			2,898,971.00		Breakdown No.207
2)	backfill 2	vibration roller,tamping machine	7,470	m3		45.37			338,913.90		Breakdown No.208
3)	material fee for backfill	sand	60,873	m3		67.10			4,084,578.30		C-030
2	transportation fee for buying material										
1)	excavation and loading	0.8m3 back hoe loose soil	60,873	m3		19.22			1,169,979.06		Breakdown No.205
2)	transportation by damp truck	Distance 20km	60,873	m3		135.51			8,248,900.23		Breakdown No.218
3	transportation fee for reused material										
1)	excavation and loading	0.8m3 back hoe loose soil	45,183	m3		19.22			868,417.26		Breakdown No.205
2)	transportation by damp truck	Distance 0.3km	45,183	m3		18.47			834,530.01		Breakdown No.217
4	Earth finishing										
1)	earth finishing foundation		4,640.0	m3		7.36			34,150.40		Breakdown No.221
2)	rough finishing	0.8m3 back hoe	1,610	m2		34.70			55,867.00		Breakdown No.222
5	protection fence for waterpollution										
1)	protection fence		253	m		1,112.18			281,381.54		Breakdown No.452
	Total								18,815,688.70		(YEN) 122,113,820

A-3 SUMMARY of Demolition work

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-3	Demolition work										
											(YEN)
A-3-1	Demolition work		1.0	L.S					131,996.64		856,658
	Total								131,996.64		(YEN) 856,658

A-3-1 Demolition work

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Demolition work										
1)	concrete demolition	reinforced concrete	195.42	m3		469.06			91,663.70		Breakdown No.227
2)	concrete demolition	plain concrete	5.78	m3		224.59			1,298.13		Breakdown No.226
3)	breaked concrete disposal	Distance 20km	201.2	m3		194.01			39,034.81		Breakdown No.232
	Total								131,996.64		(YEN) 856,658

A-4 SUMMARY of Sheet pile bank protection

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-4	Sheet pile bank protection										
											(YEN)
A-4-1	Capping concrete		1.0	L.S					1,651,647.40		10,719,192
A-4-2	Sheet pile		1.0	L.S				636,160	3,742,433.16	6,996,465	103,387,235
	Total							636,160	5,394,080.56	6,996,465	(YEN) 114,106,427

A-4-1 Capping concrete

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	crown works										
1)	formwork	reinforced concrete	1,663.9	m2		400.74			666,791.28		Breakdown No.304
2)	placing reinforced concrete	25N/mm2 by crane	517.89	m3		1,356.29			702,409.02		Breakdown No.330
3)	curing	reinforced concrete	517.89	m3		7.83			4,055.07		Breakdown No.340
4)	bending,cutting and placing for re-bar	D12	13.62	t		18,857.16			256,777.94		Breakdown No.301
5)	joint filler	@10m	53.54	m2		403.70			21,614.09		Breakdown No.345
	Total								1,651,647.40		(YEN) 10,719,192

A-4-2 Sheet pile

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Sheet pile protection										
1)	driving sheet pile	PU18, L≦15m (driving length)	126	sheet		1,466.45			184,772.70		Breakdown No.654
		PU18, L≦12m (driving length)	146	sheet		1,231.17			179,750.82		Breakdown No.655
		PU18, L≦9m (driving length)	43	sheet		997.84			42,907.12		Breakdown No.656
		PU12, L≦12m (driving length)		sheet		1,055.19					Breakdown No.657
		PU12, L≦9m (driving length)	62	sheet		880.52			54,592.24		Breakdown No.658
		PU12, L≦6m (driving length)	486	sheet		761.90			370,283.40		Breakdown No.659
		PU12, L≦4m (driving length)		sheet		645.24					Breakdown No.660
		PU12, L≦2m (driving length)		sheet		527.92					Breakdown No.661
2)	Sheet pile press fitting	PU, L≦15m (driving length)		sheet		165.71	5,233				Breakdown No.662
		PU, L≦12m (driving length)		sheet		130.98	4,139				Breakdown No.663
3)	Mobilization & demobilization	press fitting machine for sheet pile		nos		700.36	19,332				Breakdown No.665
4)	material fee for sheet pile	PU12, 18	722.09	t	881.00			636,160.04			
5)	installation for tie-rod and waling		47.68	t		3,311.13			157,866.66		Breakdown No.616
6)	material fee for tie-rod (NHT690)	φ46 L=10.0m 2pcs/rod	2	nos			68,175			136,350	JS-042
		φ46 L=11.0m 2pcs/rod	2	nos			74,295			148,590	JS-043
		φ46 L=11.5m 2pcs/rod	23	nos			77,040			1,771,920	JS-044
		φ46 L=12.0m 2pcs/rod	20	nos			79,785			1,595,700	JS-045
		φ46 L=13.0m 2pcs/rod	2	nos			85,905			171,810	JS-046
		φ46 L=13.5m 2pcs/rod	8	nos			89,325			714,600	JS-047
		φ46 L=14.0m 2pcs/rod	6	nos			92,025			552,150	JS-048
		φ42 L=12.0m 2pcs/rod	8	nos			51,255			410,040	JS-049
		φ42 L=9.0m 2pcs/rod	2	nos			53,595			107,190	JS-050
		φ42 L=8.5m 2pcs/rod	9	nos			69,480			625,320	JS-051
		φ32L=7.5m 2pcs/rod	22	nos			27,990			615,780	JS-052
		φ32 L=8.0m 2pcs/rod	1	nos			29,385			29,385	JS-053
		φ32 L=9.0m 2pcs/rod	1	nos			32,670			32,670	JS-054
		φ25 L=7.5m 2pcs/rod	4	nos			21,240			84,960	JS-055
7)	material fee for waling	UPN	32.69	t		12,553.60			410,389.73		C-006×80%
8)	sheet pile welding	on site	293	nos		1,944.85			569,841.05		Breakdown No.643
9)	anticorrosion painting (bitumen)		7,145.3	m2		248.00			1,772,029.44		
	Total							636,160	3,742,433.16	6,996,465	(YEN) 103,387,235

A-5 SUMMARY of bank protection

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-5	Bank protection										
											(YEN)
A-5-1	Bank protection		1.0	L.S					5,023,275.06	10,700,560	43,301,615
	Total								5,023,275.06	10,700,560	(YEN) 43,301,615

A-5-1 Bank protection

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Riprap										
1)	wet stone pitching	t=35cm	2008.8	m2		841.71			1,690,827.04		Breakdown No.401
2)	placing backfill concrete	18N/mm2 by crane	161.4	m3		1,479.36			238,709.52		Breakdown No.333
3)	curing	plain concrete	161.4	m3		12.92			2,084.77		Breakdown No.341
2	crown works										
1)	form for lean concrete		10.2	m2		209.60			2,137.92		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	1.8	m3		1,479.36			2,640.65		Breakdown No.333
3)	curing	plain concrete	1.8	m3		12.92			23.06		Breakdown No.341
4)	formwork	for small structure	107.8	m2		355.10			38,295.03		Breakdown No.307
5)	placing plain concrete	18N/mm2 by man power	16.0	m3		1,109.76			17,750.61		Breakdown No.339
6)	curing	small structure	17.8	m3		30.22			537.31		Breakdown No.342
7)	gravel for under concrete	t=100mm	3.6	m2		99.31			354.53		Breakdown No.224
8)	joint filler	expansion joint	1.3	m2		45.20			59.93		Breakdown No.351
3	base concrete										
1)	form for lean concrete		10.7	m2		209.60			2,232.24		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	2.7	m3		1,479.36			3,938.79		Breakdown No.333
3)	curing	plain concrete	2.7	m3		12.92			34.39		Breakdown No.341
4)	formwork	for small structure	104.4	m2		355.10			37,089.90		Breakdown No.307
5)	placing plain concrete	18N/mm2 by man power	16.4	m3		1,109.76			18,201.72		Breakdown No.339
6)	curing	small structure	16.4	m3		30.22			495.65		Breakdown No.342
7)	gravel for under concrete	t=100mm	4.5	m2		99.31			445.55		Breakdown No.224
8)	joint filler	expansion joint	1.7	m2		45.20			75.27		Breakdown No.351
4	gabion protection	downstream									
1)	installation for gabion	0.5×1.0×2.0	1,184	nos		1,173.37	3,990		1,389,270.08	4,724,160	Breakdown No.243
		1.0×1.0×2.0	670	nos		2,355.33	8,920		1,578,071.10	5,976,400	Breakdown No.244
	Total								5,023,275.06	10,700,560	(YEN) 43,301,615

A-6 SUMMARY of Canal bed protection

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-6	Canal bed protection										
											(YEN)
A-6-1	bed protection for upstream	stone riprap φ200	1.0	L.S					729,899.28		4,737,046
A-6-2	bed protection for downstream	stone riprap φ400	1.0	L.S					1,428,964.80		9,273,982
A-6-3	Sheet pile for water stop		1.0	L.S				196,051	482,767.31		25,353,545
	Total							196,051	2,641,631.39		(YEN) 39,364,573

A-6-1 Bed protection for upstream

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Bed protection for upstream										
1)	stone riprap	working radius r=less 9m	956.5	m3		606.24			579,868.56		Breakdown No.407
2)	grading for riprap		1,952.0	m2		76.86			150,030.72		Breakdown No.408
	Total								729,899.28		(YEN) 4,737,046

A-6-2 Bed protection for downstream

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Bed protection for downstream										
1)	stone riprap	working radius r=less 9m	1,701.0	m3		606.24			1,031,214.24		Breakdown No.407
2)	grading for riprap		1,890.0	m2		76.86			145,265.40		Breakdown No.408
3)	gravel for backfill	t=0.1m	208.5	m3		746.76			155,699.46		
4)	geotextile	t=0.5mm, Nylon,polyester	2085.0	m2		46.42			96,785.70		Breakdown No.411
	Total								1,428,964.80		(YEN) 9,273,982

A-6-3 Sheet pile for water stop

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Sheet pile for water stop										
1)	driving sheet pile	PU18, L≦15m (driving length)	1	sheet		1,466.45			1,466.45		Breakdown No.654
		PU18, L≦12m (driving length)	3	sheet		1,231.17			3,693.51		Breakdown No.655
		PU18, L≦9m (driving length)	4	sheet		997.84			3,991.36		Breakdown No.656
		PU12, L≦12m (driving length)	120	sheet		1,055.19			126,622.80		Breakdown No.657
		PU12, L≦9m (driving length)	8	sheet		880.52			7,044.16		Breakdown No.658
		PU12, L≦6m (driving length)	122	sheet		761.90			92,951.80		Breakdown No.659
		PU12, L≦4m (driving length)	120	sheet		645.24			77,428.80		Breakdown No.660
		PU12, L≦2m (driving length)	104	sheet		527.92			54,903.68		Breakdown No.661
2)	material fee for sheet pile	PU12, 18	222.53	t	881.00			196,050.69			
3)	sheet pile welding	on site	31	nos		1,944.85			60,290.35		Breakdown No.643
4)	anticorrosion painting	sand plasting and painting	193.68	m2		248.00			48,032.64		
5)	sheet pile cutting		24.0	m		264.24			6,341.76		Breakdown No.646
	Total				881			196,051	482,767.31		(YEN) 25,353,545

A-7 SUMMARY of Concrete work for regulators

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-7	Concrete work for regulators										
											(YEN)
A-7-1	concrete works	regulator body	1.0	L.S					44,873,249.71	686,206	291,913,597
	Total								44,873,249.71	686,206	(YEN) 291,913,597

A-7-1 Concrete

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Concrete	main body									
1)	earth foundation finishing		4,553.1	m2		28.06			127,759.42		Breakdown No.223
2)	form for lean concrete		51.92	m2		209.60			10,882.43		Breakdown No.308
3)	placing lean concrete	18N/mm2 by crane	403.1	m3		1,326.22			534,599.28		Breakdown No.334
4)	curing	plain concrete	403.1	m3		12.92			5,208.05		Breakdown No.341
5)	formwork	reinforced concrete	14,302.0	m2		400.74			5,731,375.46		Breakdown No.306
6)	formwork	circular structure	490.7	m2		525.17			257,706.17		Breakdown No.305
7)	placing concrete	25N/mm2(src, night time)	14,667.0	m3		1,446.03			21,208,922.01		Breakdown No.332-1
8)	placing concrete	25N/mm2(opc)	1,372.5	m3		1,356.29			1,861,467.33		Breakdown No.330
9)	curing	reinforced concrete	16,039.5	m3		7.83			125,589.05		Breakdown No.340
10)	bending,cutting and placing for re-bar	D13～D25mm	586.03	t		17,805.74			10,434,680.00		Breakdown No.302
11)	scaffolding	not less than 4m	10,755.1	m2		161.52			1,737,170.21		Breakdown No.309
12)	pipe support falsework	not greater than 4t/m2	4,360.7	m3		144.07			628,244.60		Breakdown No.314
13)	joint filler	t=20mm	488.7	m2		403.70			197,284.15		Breakdown No.345
14)	water stop	w=300mm	251.0	m		37.54	2,214		9,423.29	555,758	Breakdown No.343
15)	water stop	water-swelling	66.1	m		16.56	1,975		1,093.78	130,448	Breakdown No.344
16)	addtive for rust-proofing	for reinforced condrete	16,039.5	m3		124.81			2,001,844.48		
	Total								44,873,249.71	686,206	(YEN) 291,913,597

A-8 SUMMARY of Pile foundation work

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-8	Pile foundation work										
											(YEN)
A-8-1	Cast-in-place RC pile	φ1,000	1.0	L.S					13,382,883.34		86,854,912.88
	Total								13,382,883.34		(YEN) 86,854,913

A-8-1 Cast-in-place RC pile

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Cast-in-place RC pile	φ1,000									
1)	mobilization and demobilization		2.0	L.S		297,720.00			595,440.00		
2)	pile drilling		2,430	m		1,712.00			4,159,475.20		
	including fabricate and lowering stell cage and pour concrete										
3)	placing concrete	25N/mm2(src)	1908.203	m3		1,386.07			2,644,903.45		Breakdown No.332
4)	bending,cutting and placing for re-bar		301.02	t		17,805.74			5,359,812.63		Breakdown No.302
5)	pile head demolishing	φ1,000, 0.8m	120.6	m3		469.06			56,586.06		Breakdown No.227
6)	load test		2.0	L.S		283,333.00			566,666.00		
	Total								13,382,883.34		(YEN) 86,854,913

A-9 SUMMARY of Accessory works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-9	Accessory works										
											(YEN)
A-9-1	Road works		1.0	L.S					9,734,042.76		63,173,938
A-9-2	Bridge works		1.0	L.S					4,534,424.62	9,425,245	38,853,661
A-9-3	Approach slab		1.0	L.S					528,717.21	3,985,200	7,416,575
A-9-4	Accessory works around regulator		1.0	L.S					4,718,986.00	4,158,820	34,785,039
	Total								19,516,170.59	17,569,265	(YEN) 144,229,212

A-9-1 Road works (1/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Asphalt pavement	roadway									
1)	enbankment		10,225	m3		37.90			387,539.62		Breakdown No.207
	material fee for temporary road	sand	12,916	m3		67.10			866,676.59		C-030
	transportation fee for buying material										
	excavation and loading	0.8m3 back hoe loose soil	12,916	m3		19.22			248,249.24		Breakdown No.205
	transportation by damp truck	Distance 20km	12,916	m3		135.51			1,750,273.40		Breakdown No.218
2)	wearing course	t=50mm	4,380	m2		143.00			626,287.09		DC-004
3)	binder course	t=60mm	4,380	m2		143.00			626,287.09		DC-004
4)	base course	t=200mm	4,380	m2		132.78			581,527.27		Breakdown No.502
5)	sub base course	t=200mm	4,380	m2		132.78			581,527.27		Breakdown No.502
6)	tack coat		4,380	m2		16.00			70,074.08		DC-003
7)	prime coat		4,380	m2		19.00			83,212.97		DC-002
2	Asphalt pavement	pathway									
1)	wearing course	t=50mm	623.7	m2		143.00			89,191.96		DC-004
2)	base course	t=200mm	623.7	m2		132.78			82,817.54		Breakdown No.502
3)	prime coat		623.7	m2		19.00			11,850.68		DC-002
3	curb concrete										
1)	form for lean concrete		127.3	m2		209.60			26,689.20		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	20.7	m3		1,479.36			30,585.21		Breakdown No.333
3)	curing	plain concrete	20.7	m3		12.92			267.11		Breakdown No.341
3)	formwork	for small structure	964.9	m2		355.10			342,646.12		Breakdown No.307
4)	placing plain concrete	18N/mm2 by man power	109.5	m3		1,109.76			121,480.35		Breakdown No.339
5)	curing	small structure	109.5	m3		30.22			3,308.04		Breakdown No.342
6)	gravel for under concrete	t=100mm	41.3	m2		99.31			4,106.39		Breakdown No.224
4	guard pipe	H=1.1m	629.81	m		1,212.12			763,405.29		Breakdown No.514
5	slope protection										
1)	stone masonry with mortar	t=35cm	1765.3	m2		841.71			1,485,828.57		Breakdown No.401
2)	placing backfill concrete	18N/mm2 by crane	214.5	m3		1,479.36			317,374.66		Breakdown No.333
3)	curing	plain concrete	214.5	m3		12.92			2,771.79		Breakdown No.341

A-9-1 Road works (2/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
6	crown concrete										
1)	form for lean concrete		47.9	m2		209.60			10,031.45		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	7.9	m3		1,479.36			11,751.29		Breakdown No.333
3)	curing	plain concrete	7.9	m3		12.92			102.63		Breakdown No.341
4)	formwork	for small structure	395.9	m2		355.10			140,574.81		Breakdown No.307
5)	placing plain concrete	18N/mm2 by man power	59.1	m3		1,109.76			65,531.32		Breakdown No.339
6)	curing	small structure	20.7	m3		30.22			624.78		Breakdown No.342
7)	gravel for under concrete	t=100mm	15.9	m2		99.31			1,577.73		Breakdown No.224
8)	joint filler	expansion joint	5.9	m2		45.20			266.90		Breakdown No.353
7	base concrete										
1)	form for lean concrete		53.7	m2		209.60			11,250.69		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	13.4	m3		1,479.36			19,851.90		Breakdown No.333
3)	curing	plain concrete	13.4	m3		12.92			173.37		Breakdown No.341
4)	formwork	for small structure	474.3	m2		355.10			168,431.08		Breakdown No.307
5)	placing plain concrete	18N/mm2 by man power	72.5	m3		1,109.76			80,417.59		Breakdown No.339
6)	curing	small structure	72.5	m3		30.22			2,189.86		Breakdown No.342
7)	gravel for under concrete	t=100mm	18.8	m2		99.31			1,865.73		Breakdown No.224
8)	joint filler	expansion joint	7.2	m2		45.20			327.53		Breakdown No.351
8	concrete stair										
1)	form for lean concrete		16.9	m2		209.60			3,535.78		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	8.4	m3		1,479.36			12,417.03		Breakdown No.333
3)	curing	plain concrete	8.4	m3		12.92			108.44		Breakdown No.341
4)	formwork	reinforced concrete	118.6	m2		400.74			47,509.37		Breakdown No.304
5)	placing concrete	25N/mm2(opc)	31.0	m3		1,356.29			42,068.86		Breakdown No.330
6)	curing	reinforced concrete	31.0	m3		7.83			242.86		Breakdown No.340
7)	gravel for under concrete	t=100mm	12.5	m2		99.31			1,243.54		Breakdown No.224
8)	bending,cutting and placing for re-bar	D12	0.42	t		18,857.16			7,970.69		Breakdown No.301
	Total								9,734,042.76		(YEN) 63,173,938

A-9-2 Bridge Works

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	concrete work										
1)	formwork	reinforced concrete	1,696.3	m2		400.74			679,775.92		Breakdown No.304
2)	placing concrete	25N/mm2(opc)	548.9	m3		1,356.29			744,406.81		Breakdown No.330
3)	curing	reinforced concrete	548.9	m3		7.83			4,297.53		Breakdown No.340
4)	bending,cutting and placing for re-bar	D12	105.09	t		18,857.16			1,981,642.37		Breakdown No.301
5)	pipe support falsework	not greater than 4t/m2	6,121.3	m3		144.07			881,888.48		Breakdown No.314
6)	Styrofoam	t=20～150mm	14.0	m3			26,190			366,607	JM-008
2	shoe										
1)	rubber bearing	330×150×40	20	nos			11,760			235,200	JM-010
		330×300×40	40	nos			23,590			943,600	JM-011
		150×10,000×20	2	nos			108,780			217,560	JM-012
		300×10,000×20	5	nos			217,560			1,087,800	JM-013
2)	corrosion-proof anchor	Fixed, F25D	12	nos			6,930			83,160	JM-015
		Movable, M25D	20	nos			8,260			165,200	JM-016
3)	packing	for F25D	12	nos			1,190			14,280	JM-017
		for M25D	20	nos			2,940			58,800	JM-018
3	steel expansion joint										
1)	expansion joint (brof joint)	displacement⊿=20mm	24.2	m		232.34	35,190		5,622.62	851,598	Breakdown No.516
2)	expansion joint (brof joint)	displacement⊿=35mm	96.8	m		232.34	55,800		22,490.51	5,401,440	Breakdown No.517
3)	Anchor bar	D12	0.61	t		11,442.00			7,029.08		C-005
4	balustrade for bridge										
1)	balustrade	h=1.100	165.2	m		1,212.12			200,242.22		Breakdown No.514
2)	Anchor bar	D12	0.61	t		11,442.00			7,029.08		C-005
	Total								4,534,424.62	9,425,245	(YEN) 38,853,661

A-9-3 approach cushion slab

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	concrete work										
1)	formwork	reinforced concrete	96.0	m2		400.74			38,471.04		Breakdown No.304
2)	placing concrete	25N/mm2(opc)	160.0	m3		1,356.29			217,006.40		Breakdown No.330
3)	curing	reinforced concrete	160.0	m3		7.83			1,252.80		Breakdown No.340
4)	bending,cutting and placing for re-bar	D22	14.24	t		17,805.74			253,553.73		Breakdown No.302
5)	Anchor cap	SGP φ40×80	200	nos		67.00			13,400.00		C-136
6)	Anchor bar	D22×500×200nos	0.3	t		11,442.00			3,478.36		C-005
7)	joint filler	expansion joint	34.4	m2		45.20			1,554.88		Breakdown No.351
2	shoe										
1)	rubber shoe	t=30mm	24.0	m2			166,050			3,985,200	JM-014
	Total								528,717.21	3,985,200	(YEN) 7,416,575

A-9-4 Accessory works around regulator (1/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	accessory work for gate										
1)	formwork for post-placing concrete	reinforced concrete	1,248.8	m2		400.74			500,448.11		Breakdown No.304
2)	post-placing concrete	25N/mm2(src, night time)	340.2	m3		1,446.03			491,953.86		Breakdown No.332-1
3)	post-placing concrete	25N/mm2(opc)	7.5	m3		1,356.29			10,185.73		Breakdown No.330
4)	curing	for post-placing concrete	347.7	m3		7.83			2,722.64		Breakdown No.340
5)	joint bar	D22	2.92	t		11,442.00			33,457.14		C-005
6)	installation for joint bar	D22	7,900	nos		83.45			659,255.00		Breakdown No.350
2	hydraulic pipe pit works										
1)	form for lean concrete		9.1	m2		209.60			1,909.45		Breakdown No.308
2)	placing lean concrete	18N/mm2 by crane	10.5	m3		1,479.36			15,562.86		Breakdown No.333
3)	curing	plain concrete	10.5	m3		12.92			135.91		Breakdown No.341
4)	formwork	reinforced concrete	374.7	m2		400.74			150,169.30		Breakdown No.304
5)	placing concrete	25N/mm2(opc)	85.8	m3		1,356.29			116,383.24		Breakdown No.330
6)	curing	reinforced concrete	85.8	m3		7.83			671.89		Breakdown No.340
7)	bending,cutting and placing for re-bar	D22	8.52	t		17,805.74			151,687.09		Breakdown No.302
8)	scaffolding	not less than 4m	160.1	m2		161.52			25,865.81		Breakdown No.309
9)	pipe support falsework	not greater than 4t/m2	92.0	m3		144.07			13,250.11		Breakdown No.314
10)	water stop	w=300mm	16.8	m		37.54	2,214		630.67	37,195	Breakdown No.343
11)	joint filler	expansion joint	5.1	m2		45.20			231.87		Breakdown No.351
12)	joint filler	construction joint	0.6	m2		403.70			250.29		Breakdown No.345
13)	checker plate	t=3.2mm	0.98	m2		349.41			342.41		
		t=4.5mm	18.79	m2		476.12			8,946.24		
14)	Anchor bar	D16	0.005	t		11,442.00			57.11		C-002
15)	installation for hydraulic pipe	SUS 32A	4,004.0	m		75.50			302,302.00		Breakdown No.245
3	steel stairs										
1)	steel stairs		2.0	L.S		129,944.00			259,888.00		Breakdown No.518
2)	foundation for support		2.0	L.S		14,774.67			29,549.34		Breakdown No.352
4	installation for grating	IB, 44×5×3	227.84	m2		232.34	18,090		52,936.34	4,121,625	Breakdown No.515

A-9-4 Accessory works around regulator (2/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
5	installation for handrail	H=1.1m	563.2	m		1,395.28			785,821.69		Breakdown No.512
6	crane facility										
1)	chain block	manual operation, 5t	2.0	L.S		32,157.16			64,314.32		
2)	rail	I 300x150x10x18.5	1.07	t		15,692.00			16,711.98		C-006
7	installation for steel steps	b=300mm	765.0	nos		370.65			283,547.25		Breakdown No.348
8	staff gauge		65.15	m		1,664.10			108,416.02		JM-029
9	gate lighting										
1)	high pressure mercury lamp	400W	6.0	nos		5,075.00			30,450.00		
2)	installation for gate lighting		6.0	nos		18,533.63			111,201.78		Breakdown No.1013
10	water level detector										
1)	water level detector	DC4-20A	13.0	nos		34,927.58			454,058.55		
2)	installation for water level detector		13.0	nos		2,744.00			35,672.00		Breakdown No.1012
	Total								4,718,986.00	4,158,820	(YEN) 34,785,039

A-10 SUMMARY of Electric works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-10	Electric works										
											(YEN)
A-10-1	installation for facilities of receiving power and distribution power		1.0	L.S					248,134.50	8,650,000	10,260,393
A-10-2	Installation for electric cable and wire		1.0	L.S					3,378,400.95		21,925,822
	Total								3,626,535.45	8,650,000	(YEN) 32,186,215

A-10-1 Installation for facilities of receiving power and distribution power

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Installation for power receiving and distribution equipment										
1)	installation for power receiving and distribution panel		1.0	nos		3,388.00			3,388.00		Breakdown No.1010
2)	emergency generator with panel	80kVA, 3phase 4wire	1.0	nos			8,650,000			8,650,000	JM-025
3)	installation for backup generator		1.0	nos		33,246.50			33,246.50		Breakdown No.1011
4)	transformer	three phase100KVA	1.0	nos		211,500.00			211,500.00		C-135
	Total								248,134.50	8,650,000	(YEN) 10,260,393

A-10-2 Installation for electric cable and wire (1/2)

No.	Item	Quantity	Unit	Unit Price			Amount			Remarks
				US$	LE	YEN	US$	LE	YEN	
1	electric cable and wire									
1)	electric cable									
	CV 3.5sq -2C	323.6	m		43.25			13,995.70		Breakdown No.1014
	CV 8sq -2C	340.3	m		66.44			22,609.53		Breakdown No.1015
	CV 14sq -2C	40.0	m		92.29			3,691.60		Breakdown No.1016
	CV 22sq -2C	20.0	m		124.83			2,496.60		Breakdown No.1017
	CV 2sq -3C	64.5	m		41.83			2,698.03		Breakdown No.1018
	CV 5.5sq -3C	268.6	m		71.80			19,285.48		Breakdown No.1019
	CV 8sq -3C	458.6	m		87.30			40,035.78		Breakdown No.1020
	CV 14sq -3C	820.4	m		123.72			101,499.88		Breakdown No.1021
	CV 22sq -3C	125.8	m		168.44			21,189.75		Breakdown No.1022
	CV 38sq -3C	225.2	m		254.94			57,412.48		Breakdown No.1023
	CV 8sq -4C	20.0	m		110.31			2,206.20		Breakdown No.1024
	CV 38sq -4C	30.0	m		327.64			9,829.20		Breakdown No.1025
	CVV 2sq -4C	5.0	m		52.36			261.80		Breakdown No.1026
	CVV 2sq -5C	969.3	m		63.91			61,947.96		Breakdown No.1027
	CVV 2sq -8C	919.8	m		86.62			79,673.07		Breakdown No.1028
	CVV 2sq -10C	74.5	m		106.68			7,947.66		Breakdown No.1029
	CVV 2sq -20C	785.2	m		191.53			150,389.35		Breakdown No.1030
	CVV 2sq -30C	4164.6	m		253.71			1,056,600.66		Breakdown No.1031
	CVVS 2sq -2C	451.5	m		47.59			21,486.88		Breakdown No.1032
	CVVS 2sq -10C	497.6	m		124.83			62,115.40		Breakdown No.1033
	CVVS 2sq -15C	113.8	m		174.84			19,896.79		Breakdown No.1034
	CVVS 2sq -30C	910.4	m		272.75			248,311.60		Breakdown No.1035
2)	electric wire									
	IV 3.5sq	819.6	m		25.93			21,252.22		Breakdown No.1037
	IV 5.5sq	95.1	m		29.50			2,805.45		Breakdown No.1038
	IV 8sq	1050.8	m		36.46			38,312.16		Breakdown No.1039
	IV 14sq	351.0	m		52.56			18,448.56		Breakdown No.1040
	IV 22sq	30.0	m		69.60			2,088.00		Breakdown No.1041
	CPEV 0.9mm -3P	1521.8	m		48.34			73,563.81		Breakdown No.1036

A-10-3 Installation for electric cable and wire (2/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
3)	conduits										
	FEP 30		576.6	m		72.87			42,016.84		Breakdown No.1042
	FEP 40		990.8	m		83.30			82,533.64		Breakdown No.1043
	FEP 50		45.8	m		96.10			4,401.38		Breakdown No.1044
	FEP 65		155.8	m		114.00			17,761.20		Breakdown No.1045
	FEP 80		762.8	m		139.03			106,052.08		Breakdown No.1046
	FEP 100		613.2	m		188.15			115,373.58		Breakdown No.1047
	FEP 125		474.8	m		232.23			110,262.80		Breakdown No.1048
	G 28		285.2	m		163.84			46,727.16		Breakdown No.1049
	G 36		458.9	m		201.06			92,266.43		Breakdown No.1050
2	earth work	excavasion and backfill	32.00	m3		116.67			3,733.44		Breakdown No.1052
3	handhole	900×900×900	32.00	nos		18,600.65			595,220.80		Breakdown No.1051
	Total								3,378,400.95		(YEN) 21,925,822

A-11 SUMMARY of Gate manufactures and works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-11	Gate manufactures and works										
											(YEN)
A-11-1	gate manufacture		1.0	L.S					12,350,392.57	1,623,140,000	1,703,294,048
A-11-2	installation for gate facilities		1.0	L.S					6,731,130.26	49,194,600	92,879,635
	Total								19,081,522.83	1,672,334,600	(YEN) 1,796,173,683

A-11-1 Gate manufacture

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Gate manufacture										
1)	double stage roller gate	large gate									
	gate leaf	6.0×6.55	2.0	L.S			157,655,000			315,310,000	
	gate guide		2.0	L.S			132,187,000			264,374,000	
	hoisting device	hydraulic	2.0	L.S			410,835,000			821,670,000	
	remote operation system		2.0	L.S			110,893,000			221,786,000	
2)	slide gate	small gate									
	for Badraman	2.0×2.65, including hoist	2.0	L.S		461,044.07			922,088.13		
	for Diroutiah	2.0×2.35, including hoist	3.0	L.S		461,044.07			1,383,132.20		
	for Abo Gabal	2.0×2.95, including hoist	4.0	L.S		499,464.41			1,997,857.62		
	for Sahelyia	2.0×3.55, including hoist	2.0	L.S		527,406.47			1,054,812.94		
3)	stop log										
	for large regulator	Type-A×2、Type-B×8	2.0	L.S		2,368,089.98			4,736,179.96		
	for asmall regulator	Type-A×2、Type-B×7	2.0	L.S		1,128,160.86			2,256,321.72		
	Total								12,350,392.57	1,623,140,000	(YEN) 1,703,294,048

A-11-2 Installation for manufactures

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Installation for manufactures										
1)	installation for gate	for gate, gate guide, hoist	1.0	L.S		5,372,924.63			5,372,924.63		Breakdown No.1101
2)	installation for stop log	for gate guide, crane	1.0	L.S		1,351,345.63			1,351,345.63		Breakdown No.1102
3)	control panel for gate operation										
	panel for gate control		12.0	nos							included in "A-11-1"
	remote operation panel		1.0	nos		6,860.00			6,860.00		Breakdown No.1009
4)	Japanese mechanical engineer for gate		1,050.0	day			22,154			23,261,700	SV-05 ×1.06
5)	Japanese electrical engineer for gate		1,050.0	day			24,698			25,932,900	SV-06 ×1.06
	Total					6,731,130.26	46,852		6,731,130.26	49,194,600	(YEN) 66,946,735

A-12 SUMMARY of Expense of the machine and facilities

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
A-12	Expense of the machine and facilities										
											(YEN)
A-12-1	Expense of the machine and facilities		1.0	L.S				221,310	23,815,178.13	53,661,990	233,305,733
	Total							221,310	23,815,178.13	53,661,990	233,305,733

A-12-1 Rent fee for heavy equipment (1/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Rent fee for heavy equipment								25day/30day, in the case of more than 3 month rental		
1-1	rent in Egypt										
1)	rough terrain crane	25t	1,410.0	day		3,194.17			4,503,775.00		B-019 x 25/30
2)	truck with crane	4t/2.9t	1,350.0	day		1,927.50			2,602,125.00		B-030 x 25/30
3)	Truck	11t	1,350.0	day		1,591.67			2,148,750.00		B-029 x 25/30
4)	Truck mixer	4.4m3	1,260.0	day		2,150.00			2,709,000.00		B-045 x 25/30
5)	Truck mixer	4.4m3	1,230.0	day		2,150.00			2,644,500.00		B-045 x 25/30
6)	Truck mixer	4.4m3	915.0	day		2,150.00			1,967,250.00		B-045 x 25/30
7)	Truck mixer	4.4m3	450.0	day		2,150.00			967,500.00		B-045 x 25/30
8)	cement silo	50t	1,290.0	day		1,595.83			2,058,625.00		B-048 x 25/30
9)	Wheel Loader	2.1m3	400.0	day		2,030.83			812,333.33		B-024 x 25/30
1-2	rent in Japan										
1)	Batching plant	30m3/h	1.0	LS	221,310			221,310			
2)	Vibration hunmer (1)	Hydraulic, 232KW	1,507.0	day			21,100			31,797,700	JE-003
3)	Vibration hunmer (2)	Hydraulic, 232KW	367.0	day			21,100			7,743,700	JE-005
4)	Water jet	14.7Mpa 325L/min	1,507.0	day			9,370			14,120,590	JE-007

A-12-1 Rent fee for heavy equipment (2/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
2	Operator wage										
	rent in Egypt										
1)	rough terrain crane	25t	1,058.0	day		435.00			460,230.00		A-025
2)	truck with crane	4t/2.9t	1,013.0	day		435.00			440,655.00		A-025
3)	Truck	11t	1,013.0	day		435.00			440,655.00		A-025
4)	Truck mixer	4.4m3	945.0	day		435.00			411,075.00		A-025
5)	Truck mixer	4.4m3	923.0	day		435.00			401,505.00		A-025
6)	Truck mixer	4.4m3	687.0	day		435.00			298,845.00		A-025
7)	Truck mixer	4.4m3	338.0	day		435.00			147,030.00		A-025
3	Fuel fee										I-017
	rent in Egypt										
1)	rough terrain crane	25t	122,696	Lit		2.00			245,392.40		115.97 Lit/day
2)	truck with crane	4t/2.9t	39,092	Lit		2.00			78,183.20		38.59 Lit/day
3)	Truck	11t	61,621	Lit		2.00			123,241.40		60.83 Lit/day
4)	Truck mixer	4.4m3	57,900	Lit		2.00			115,800.20		61.27 Lit/day
5)	Truck mixer	4.4m3	56,552	Lit		2.00			113,104.40		61.27 Lit/day
6)	Truck mixer	4.4m3	42,092	Lit		2.00			84,184.80		61.27 Lit/day
7)	Truck mixer	4.4m3	20,709	Lit		2.00			41,418.40		61.27 Lit/day
	Total							221,310	23,815,178.13	53,661,990	(YEN) 233,305,733

B SUMMARY of Temporary works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B	**Temporary works**										
											(YEN)
B-1	Double sheet pile		1.0	L.S				840,284.40	19,099,569.97	112,416,210	331,610,253
B-2	Single sheet pile		1.0	L.S				438,170.24	2,790,300.38	6,347,427	74,118,691
B-3	Temporary bridge		1.0	L.S					4,976,786.73	53,423,642	85,722,988
B-4	Deep well		1.0	L.S					10,519,709.00		68,272,911
B-5	Temporary road & preparation		1.0	L.S					7,783,260.59		50,513,361
B-6	diversion works		1.0	L.S					11,759,640.95		76,320,070
B-7	Other temporary works		1.0	L.S					18,178,115.27	17,112,000	135,087,968
B-8	Transpotation / Shipment		1.0	L.S				1,913,684.57	13,325,895.24	75,199,059	378,581,128
	Total							3,192,139.21	88,433,278.13	264,498,338	1,200,227,371

B-1 SUMMARY of Temporary Coffer Dam

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-1	Temporary Coffer Dam										
											(YEN)
B-1-1	Double Sheet Pile		1.0	L.S				840,284.40	8,988,272.11	112,416,210	265,987,930
B-1-2	Earth work		1.0	L.S					10,111,297.86		65,622,323
	Total							840,284.40	19,099,569.97	112,416,210	331,610,253

B-1-1 Double sheet pile

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Double sheet pile										
1)	driving sheet pile	PU28+1, L≦15m (driving length)		sheet		1,730.41					Breakdown No.649
		PU28+1, L≦12m (driving length)	1,462	sheet		1,466.45			2,143,949.90		Breakdown No.650
		PU28+1, L≦9m (driving length)		sheet		1,173.16					Breakdown No.651
		PU28+1, L≦6m (driving length)	640	sheet		939.18			601,075.20		Breakdown No.652
		PU28+1, L≦4m (driving length)	80	sheet		763.21			61,056.80		Breakdown No.653
2)	Sheet pile press fitting	PU, L≦9m (driving length)		sheet		103.68	3,280				Breakdown No.664
3)	Mobilization & demobilization	press fitting machine for sheet pile		nos		700.36	19,332				Breakdown No.665
4)	material fee for sheet pile	PU28+1	1,907.6	t	440.50			840,284.40			×0.50
5)	material fee for sheet pile	PU28+1, near rail way		t	881.00						
6)	installation for tie-rod and waling		293.9	t		3,311.13			972,988.79		Breakdown No.616
7)	material fee for tie-rod (NHT690)	φ75 L=8.9m 2pcs/rod	210	nos			151,065			31,723,650	JS-056
		φ75 L=10.0m 2pcs/rod	29	nos			167,850			4,867,650	JS-057
		φ32 L=6.8m 2pcs/rod	40	nos			25,470			1,018,800	JS-058
		φ32 L=8.0m 2pcs/rod	31	nos			29,385			910,935	JS-059
		φ28 L=4.5m 2pcs/rod		nos			16,020				JS-060
		φ28 L=5.5m 2pcs/rod		nos			18,495				JS-061
		φ28 L=7.6m 2pcs/rod		nos			24,345				JS-062
		φ28 L=8.5m 2pcs/rod		nos			26,820				JS-063
		φ28 L=8.8m 2pcs/rod	46	nos			27,450			1,262,700	JS-064
		φ28 L=10.0m 2pcs/rod	15	nos			30,825			462,375	JS-065
8)	material fee for waling	H300未満	106.6	t		7,846.00			836,383.60		C-006×0.50
9)	sheet pile welding	on site	1,662	nos		1,944.85			3,232,340.70		Breakdown No.643
10)	removing sheet pile	L≦15m (removing length)		nos		658.61					Breakdown No.611
		L≦12m (removing length)	1,462	nos		572.16			836,497.92		Breakdown No.612
		L≦9m (removing length)		nos		486.33					Breakdown No.613
		L≦6m (removing length)	640	nos		428.48			274,227.20		Breakdown No.614
		L≦4m (removing length)	80	nos		371.90			29,752.00		Breakdown No.615
11)	driving bearing pile	H150, L≦4m (driving length)		nos		615.91					Breakdown No.610
		H250, L≦4m (driving length)		nos		673.91					Breakdown No.609
12)	removing bearing pile	L≦4m (removing length)		nos		371.90					Breakdown No.615
13)	material fee for bearing pile			t		7,846.00					C-006×0.50
14)	Japanese sheet pile operator A		2,190.0	day			27,030			59,195,700	SV-01 ×1.06
15)	Japanese sheet pile operator B		480.0	fay			27,030			12,974,400	SV-02 ×1.06
	Total							840,284.40	8,988,272.11	112,416,210	(YEN) 265,987,930

B-1-2 Earth work

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	earth work										
1)	backfill	inside coffer dam	29,987	m3		37.90			1,136,499.72		Breakdown No.207
2)	backfill material fee	sand	40,458	m3		67.10			2,714,731.80		C-030
3)	transportation fee for buying material										
	excavation and loading	0.8m3 back hoe loose soil	40,458	m3		19.22			777,602.76		Breakdown No.205
	transportation by damp truck	Distance 20km	40,458	m3		135.51			5,482,463.58		Breakdown No.218
	Total								10,111,297.86		(YEN) 65,622,323

B-2 SUMMARY of Single Sheet Pile

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-2	Single Sheet Pile										
											(YEN)
B-2-1	Single Sheet Pile		1.0	L.S				438,170.24	2,790,300.38	6,347,427	74,118,691
	Total							438,170.24	2,790,300.38	6,347,427	74,118,691

B-2-1 Single Sheet Pile

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Single Sheet Pile										
1)	driving sheet pile	PU28+1, L≦15m (driving length)	200	sheet		1,730.41			346,082.00		Breakdown No.649
		PU28+1, L≦12m (driving length)		sheet		1,466.45					Breakdown No.650
		PU28+1, L≦9m (driving length)		sheet		1,173.16					Breakdown No.651
		PU28+1, L≦6m (driving length)	232	sheet		939.18			217,889.76		Breakdown No.652
		PU28+1, L≦4m (driving length)	467	sheet		763.21			356,419.07		Breakdown No.653
2)	Sheet pile press fitting	PU, L≦9m (driving length)	195	sheet		103.68	3,280		20,217.60	639,600	Breakdown No.664
3)	Mobilization & demobilization	press fitting machine for sheet pile	1	nos		700.36	19,332		700.36	19,332	Breakdown No.665
4)	material fee for sheet pile	PU28+1	663.3	t	440.50			292,188.54			×0.50
5)	material fee for sheet pile	PU28+1, near rail way	165.7	t	881.00			145,981.70			
6)	installation for tie-rod and waling		47.7	t		3,311.13			157,940.90		Breakdown No.616
7)	material fee for tie-rod (NHT690)	φ75 L=8.9m 2pcs/rod		nos			151,065				JS-056
		φ75 L=10.0m 2pcs/rod		nos			167,850				JS-057
		φ32 L=6.8m 2pcs/rod		nos			25,470				JS-058
		φ32 L=8.0m 2pcs/rod		nos			29,385				JS-059
		φ28 L=4.5m 2pcs/rod	76	nos			16,020			1,217,520	JS-060
		φ28 L=5.5m 2pcs/rod	76	nos			18,495			1,405,620	JS-061
		φ28 L=7.6m 2pcs/rod	51	nos			24,345			1,241,595	JS-062
		φ28 L=8.5m 2pcs/rod	68	nos			26,820			1,823,760	JS-063
8)	material fee for waling		26.7	t		7,846.00			209,488.20		C-006×0.50
9)	sheet pile welding	on site	200	nos		1,944.85			388,970.00		Breakdown No.643
10)	removing sheet pile	L≦15m (removing length)	200	nos		658.61			131,722.00		Breakdown No.611
		L≦12m (removing length)		nos		572.16					Breakdown No.612
		L≦9m (removing length)		nos		486.33					Breakdown No.613
		L≦6m (removing length)	232	nos		428.48			99,407.36		Breakdown No.614
		L≦4m (removing length)	467	nos		371.90			173,677.30		Breakdown No.615
11)	driving bearing pile	H150, L≦4m (driving length)	227	nos		615.91			139,811.57		Breakdown No.610
		H250, L≦4m (driving length)	46	nos		673.91			30,999.86		Breakdown No.609
12)	removing bearing pile	L≦4m (removing length)	273	nos		371.90			101,528.70		Breakdown No.615
13)	material fee for bearing pile		53.0	t		7,846.00			415,445.70		C-006×0.50
	Total							438,170.24	2,790,300.38	6,347,427	74,118,691

B-3 SUMMARY of Temporary bridge

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-3	Temporary bridge										
											(YEN)
B-3-1	Temporary bridge		1.0	L.S					4,976,786.73	53,423,642	85,722,988
	Total								4,976,786.73	53,423,642	85,722,988

B-3-1 Temporary bridge (1/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	pile driving										
1)	driving H-beam	H400, L≦12m (driving length)	139	piece		2,083.01			289,538.39		Breakdown No.604
		H400, L≦9m (driving length)		piece		1,641.77					Breakdown No.605
		H350, L≦12m (driving length)	45	piece		1,730.41			77,868.45		Breakdown No.606
		H350, L≦9m (driving length)	148	piece		1,407.14			208,256.72		Breakdown No.607
		H300, L≦6m (driving length)	55	piece		880.52			48,428.60		Breakdown No.608
2)	removing H-beam	L≦12m (removing length)	184	piece		572.16			105,277.44		Breakdown No.612
		L≦9m (removing length)	148	piece		486.33			71,976.84		Breakdown No.613
		L≦6m (removing length)	55	piece		428.48			23,566.40		Breakdown No.614
3)	material fee for H-beam	exclude re-used material	634.4	t			33,300			21,123,855	JS-005×0.50
2	substructure										
1)	installation for substructure		46.7	t		5,381.06			251,295.50		Breakdown No.629
2)	removal for substructure		46.7	t		2,884.85			134,722.49		Breakdown No.630
3)	material fee for substructure		25.6	t		7,846.00			200,857.60		C-006×0.50
3	deck plate										
1)	installation for deck plate		3,700.0	m2		201.95			747,215.00		Breakdown No.618
2)	removal for deck plate		3,700.0	m2		103.28			382,136.00		Breakdown No.619
3)	material fee for deck plate	exclude re-used material	1,916.5	m2			11,700			22,423,160	JS-002×0.50
4	superstructure										
1)	installation for superstructure		468.1	t		2,736.49			1,280,950.96		Breakdown No.620
2)	removal for superstructure		468.1	t		1,511.24			707,411.44		Breakdown No.621
3)	material fee for superstructure	exclude re-used material	264.3	t			33,300			8,801,190	JS-005×0.50
5	guard pipe										
1)	installation for bridge railing		1,164.0	m		22.56			26,259.84		Breakdown No.622
2)	removal for bridge railing		1,164.0	m		12.88			14,992.32		Breakdown No.623
3)	material fee for bridge railing	@1.8m	374	nos			2,876			1,075,437	JS-003×0.50

B-3-1 Temporary bridge(2/2)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
6	stage end										
1)	installation/removal for stage end	steel plate	317.0	m2		95.64			30,319.78		Breakdown No.633
2)	material fee for stage end	steel plate	59	nos		6,357.00			375,712.96		C-037
	Total								4,976,786.73	53,423,642	(YEN) 85,722,988

B-4 SUMMARY of Dewatering

No.	Item	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Amount Exchange to YEN
B-4	Dewatering									
										(YEN)
B-4-1	Dewatering	1.0	L.S					10,519,709.00		68,272,911
	Total							10,519,709.00		68,272,911

B-4 Dewatering

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	water pump										
1)	dewatering by water pump	φ50mm	780	day･nos		1,334.29			1,040,746.20		Breakdown No.241
2)	installation and removal for water pump		8	nos		1,238.60			9,908.80		Breakdown No.240
2	Wellpoint										
1)	installation/removal for wellpoint	121pcs×2 (Bahr-Yusef, Ibrahimia)	2.0	L.S		221,667.00			443,334.00		
2)	daily operation and control		803	day		11,000.00			8,833,000.00		
3)	fuel		96,360	Lit		2.00			192,720.00		120 Lit/day
	Total								10,519,709.00		68,272,911

B-5 SUMMARY of Temporary road

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-5	Temporary road & preparation										
											(YEN)
B-5-1	temporary road		1.0	L.S					7,783,260.59		50,513,361
	Total								7,783,260.59		50,513,361

B-5-1 temporary road

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	temporary road										
1)	embankment		21,331	m3		37.90			808,452.48		Breakdown No.207
2)	material fee for temporary road	sand	25,270	m3		67.10			1,695,617.00		C-030
3)	transportation fee for buying material										
	excavation and loading	0.8m3 back hoe loose soil	25,270	m3		19.22			485,689.40		Breakdown No.205
	transportation by damp truck	Distance 20km	25,270	m3		135.51			3,424,337.70		Breakdown No.218
4)	transportation fee for reused material										
	excavation and loading	0.8m3 back hoe loose soil	2,016	m3		19.22			38,747.52		Breakdown No.205
	transportation by damp truck	Distance 0.3km	2,016	m3		18.47			37,235.52		Breakdown No.217
5)	exsiting structure demolition	plain concrete	3,089.3	m3		224.59			693,825.88		Breakdown No.226
6)	breaked concrete disposal	Distance 20km	3,089.3	m3		194.01			599,355.09		Breakdown No.232
	Total								7,783,260.59		50,513,361

B-6 SUMMARY of Diversion works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-6	diversion works										
											(YEN)
B-6-1	diversion works		1.0	L.S					11,759,640.95		76,320,070
	Total								11,759,640.95		76,320,070

B-6-1 diversion works

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	diversion works										
1)	river side slope excavation	0.8m3 back hoe	6,281.0	m3		19.82			124,489.42		Breakdown No.201
2)	river bed excavation	0.4m3 long arm back hoe	5,089.6	m3		46.86			238,498.65		Breakdown No.235
3)	excavated soil disposal	Distance 20km	11,370.6	m3		159.33			1,811,677.69		Breakdown No.234
4)	stone riprap	for rever bed	2,093.0	m3		766.83			1,604,975.19		Breakdown No.405
5)	Barge	Bahr Yusef:60×10=600m2	100.0	day		50,400.00			5,040,000.00		
		Ibrahimia:35×10=350m2	100.0	day		29,400.00			2,940,000.00		
	Total								11,759,640.95		76,320,070

B-7 SUMMARY of Temporary road & preparation

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-7	Other temporary works										
											(YEN)
B-7-1	Temporary yard preparation		1.0	L.S					5,590,890.00		36,284,876
B-7-2	Foudation improvement work		1.0	L.S					1,893,259.19		12,287,252
B-7-3	Batching plant facility		1.0	L.S					248,140.88		1,610,434
B-7-4	utility costs		1.0	L.S					4,040,967.20		26,225,877
B-7-5	site expense		1.0	L.S					6,404,858.00	17,112,000	58,679,528
	Total								18,178,115.27	17,112,000	135,087,968

B-7-1 Temporary yard preparation

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Temporary yard preparation										
1)	spreading gravel		21,000.0	m2		132.78			2,788,380.00		Breakdown No.502
2)	removal for gravel		4,200.0	m3		28.32			118,944.00		Breakdown No.203
3)	excavated soil disposal	distance 30km	4,200.0	m3		159.33			669,186.00		Breakdown No.234
4)	temporary fence	H=2.0m	1,860.0	m		1,083.00			2,014,380.00		J-02
	Total								5,590,890.00		(YEN) 36,284,876

B-7-2 Foudation improvement work

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Foudation improvement work										
1)	embankment		2,676	m3		45.37			121,414.65		Breakdown No.208
2)	material fee for embankment	sand	3,380	m3		67.10			226,798.00		C-030
3)	transportation fee for buying material										
	excavation and loading	0.8m3 back hoe loose soil	3,380	m3		19.22			64,963.60		Breakdown No.205
	transportation by damp truck	Distance 20km	3,380	m3		135.51			458,023.80		Breakdown No.218
4)	soil improvement	cement mixing	3,189	m3		123.60			394,160.40		Breakdown No.255
5)	installation for steel plate		882	m2		3.11			2,743.02		Breakdown No.634
6)	removal for steel plate		882	m2		2.46			2,169.72		Breakdown No.635
7)	material fee for steel plate	1.5m × 3.0m, t=22mm	196	nos		3,178.50			622,986.00		C-037×0.50
	Total								1,893,259.19		12,287,252

B-7-3 Batching plant facility

No.	Item	Quantity	Unit	Unit Price			Amount			Remarks
				US$	LE	YEN	US$	LE	YEN	
1	Batching plant facility									
1)	assembling and removal for batching plant	1.0	L.S		109,080.79			109,080.79		Breakdown No.316
2)	assembling and removal for cement silo	1.0	L.S		57,566.61			57,566.61		Breakdown No.317
3)	installation and removal for concrete aggregate yard	1.0	L.S		81,493.48			81,493.48		Breakdown No.318
	Total							248,140.88		(YEN) 1,610,434

B-7-4 Utility costs

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Receiving power facilities										
1)	receiving power equipment		1.0	L.S		8,550.00			8,550.00		C-134
2)	installation		1.0	L.S		4,918.48			4,918.48		Breakdown No. 844
3)	foundation concrete	18N/mm2		m3							
4)	foundation gravel		14.96	m2		99.31			1,485.67		Breakdown No.224
5)	lean concrete		1.34	m3		1,257.46			1,690.02		Breakdown No.336
6)	formwork		4.20	m2		400.74			1,683.10		Breakdown No.304
7)	placing concrete	18N/mm2	3.60	m3		1,109.76			3,995.13		Breakdown No.339
8)	curing		3.60	m3		12.92			46.51		Breakdown No.341
9)	other materials	0.2% of facilities cost	0.2	%		8,550.00			1,710.00		0.2% of material fee
2	electricity facilities										
1)	electric cable	600V 22mm2-3C	2,100.0	m		179.00			375,900.00		C-110
2)	distribution board	75A-150A	18.0	nos		6,990.00			125,820.00		C-122
3)	switching board		1.0	nos		5,500.00			5,500.00		market price
4)	installation for cable		12.0	day･nos		341.00			4,092.00		A-031
5)	excavation		585.0	m3		154.56			90,417.60		Breakdown No.220
6)	backfill		585.0	m3		88.49			51,766.65		Breakdown No.210
3	water facilities										
1)	well	30m × 1piece	30.0	m							DE-002
2)	pump for well		2.0	nos		15,000.00			30,000.00		market price
3)	distribution pipe	φ50mm	226.0	m		316.00			71,416.00		Breakdown No.906
		φ25mm	46.5	m		136.00			6,324.00		Breakdown No.905
4)	valve	φ50mm	5.0	nos		307.00			1,535.00		Breakdown No.915
		φ25mm	5.0	nos		307.00			1,535.00		Breakdown No.915
5)	bibb cock		7.0	nos		1,491.00			10,437.00		Breakdown No.920
4	electricity connection fee		1.0	L.S		50,000.00			50,000.00		I-011
5	electric fee		1,596,073	Kwh		2.00			3,192,145.04		I-013
	Total								4,040,967.20		26,225,877

B-7-5 site expense

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	transportation fee for heavy construction equipment	20t or more									
	Cairo - Dirout										
1)	Track crane	80t × 10 nos	800	t		550.00			440,000.00		E-004
2)	Track crane	25t × 2 nos	50	t		550.00			27,500.00		E-004
2)	Crawler crane	50t × 16 nos	800	t		550.00			440,000.00		E-004
2	vehicle for site management	including driver and fuel									
1)	vehicle A	sedan	180	nos		15,750.00			2,835,000.00		H-001
2)	vehicle B	pick-up	142	nos		18,749.00			2,662,358.00		H-002
3	oversea travel cost										
1)	project manager		10	time			248,000			2,480,000	
2)	chief civil engeneer		10	time			248,000			2,480,000	
3)	civil engeneer 1		10	time			248,000			2,480,000	
4)	civil engeneer 2		10	time			248,000			2,480,000	
5)	architecture		3	time			248,000			744,000	
6)	mechanical engineer		8	time			248,000			1,984,000	
7)	electrical engineer		8	time			248,000			1,984,000	
8)	administrator		10	time			248,000			2,480,000	
	Total								6,404,858.00	17,112,000	58,679,528

B-8 SUMMARY of Transpotation / Shipment

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
B-8	Transpotation / Shipment										
1	for civil work										(YEN)
B-8-1	packing		1.0	L.S						6,229,108	6,229,108
B-8-2	loading		1.0	L.S						4,378,127	4,378,127
B-8-3	ocean transpotation		1.0	L.S				141,588.93			16,047,689
B-8-4	port charge		1.0	L.S					163,613.87		1,061,854
B-8-5	inland transpotation		1.0	L.S					1,154,727.59		7,494,182
B-8-6	insurance		1.0	L.S				563.00	5,241.38	205,577	303,404
	for temporary work										(YEN)
B-8-7	packing		1.0	L.S						16,945,133	16,945,133
B-8-8	loading		1.0	L.S					933,639.08	21,147,418	27,206,736
B-8-9	ocean transpotation		1.0	L.S				1,594,320.28			180,700,261
B-8-10	port charge		1.0	L.S					1,557,721.26		10,109,611
B-8-11	inland transpotation		1.0	L.S					8,645,791.40		56,111,186
B-8-12	insurance		1.0	L.S				5,359.00	29,764.61	2,764,594	3,565,155
	for gate facilities										(YEN)
B-8-13	packing		1.0	L.S						9,448,061	9,448,061
B-8-14	loading		1.0	L.S						5,256,166	5,256,166
B-8-15	ocean transpotation		1.0	L.S				171,172.36			19,400,675
B-8-16	port charge		1.0	L.S					197,799.17		1,283,717
B-8-17	inland transpotation		1.0	L.S					634,288.73		4,116,534
B-8-18	insurance		1.0	L.S				681.00	3,308.16	8,824,875	8,923,529
	Total							1,913,684.57	13,325,895.24	75,199,059	378,581,128

B-8-1 Packing (for civil work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Packing	(from Japan to site)									
1)	construction material for civil work	728.3 F/T	1.0	L.S			5,665,521			5,665,521	
2)	steel material for civil work	58.3 F/T	1.0	L.S			563,587			563,587	
	Total									6,229,108	6,229,108

B-8-2 Loading fee (for civil work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
2	Loading fee	(from Japan to site)									
1)	custom fee		2.0	L.S			5,900			11,800	JP-066
2)	loading	construction material for civil work	728.3	F/T			5,500			4,005,897	JP-070
		steel material for civil work	58.3	F/T			5,500			320,430	JP-070
3)	documentation		2.0	L.S			20,000			40,000	JP-068
	Total									4,378,127	4,378,127

B-8-3 Ocean transpotation (for civil work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
3	Ocean transpotation	(from Japan to site)									
1)	construction material for civil work		728.3	F/T	180.00			131,102.10			FT-001
2)	steel material for civil work		58.3	F/T	180.00			10,486.83			FT-001
	Total							141,588.93			16,047,689

B-8-4 Port charge (for civil work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
4	Port charge	(from Japan to site)									
1)	port charge		786.6	F/T		148.00			116,417.56		E-001
2)	trust money for entry		786.6	F/T		60.00			47,196.31		E-003
	Total								163,613.87		1,061,854

B-8-5 Inland transpotation (for civil work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
5	Inland transpotation	(from Alexandria to site)									
1)	inland transpotation	for permanent work	786.6	F/T		667.00			524,665.66		E-004
		imported sheet pile (for permanent work)	944.62	F/T		667.00			630,061.93		E-004
	Total								1,154,727.59		7,494,182

B-8-6 Insurance (for civil work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
6	Insurance	(from Japan to site)									
1)	insurance	I = CIP × 1.1 × r	1.0	L.S	563.00	5,241.39	205,577	563.00	5,241.38	205,577	404,906
	A: Ex-Godown amount						41,100,582				
	B: packing						6,229,108				B-7-1
	C: loading						4,378,127				B-7-2
	D: ocean transpotation				141,588.93						B-7-3
	E: port charge					163,613.87					B-7-4
	F: inland transpotation					1,154,727.59					B-7-5
	C&Pamount	C&P = A + B + C + D + E + F			141,588.93	1,318,341.46	51,707,817				
	CIP amoount	CIP = C&F × 1/(1 - 1.1 × r)			142,151.85	1,323,582.84	51,913,394				
		rate of insurance r =	0.0036								J-002
	Total							563.00	5,241.38	205,577	303,404

B-8-7 Packing (for temporary work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Packing										
	(from Japan to site)										
1)	material for temporary work	2,130.8 F/T	1.0	L.S			10,732,429			10,732,429	
2)	steel material for temporary work	1,479.0 F/T	1.0	L.S			221,659			221,658	
3)	construction equipments	206.9 F/T	1.0	L.S			2,080,632			2,080,632	
	(from site to Japan)										
1)	material for temporary work	2,056.8 F/T	1.000	L.S			3,219,729			3,219,728	
2)	steel material for temporary work	1,428.6 F/T	1.000	L.S			66,498			66,497	
3)	construction equipment	186.9 F/T	1.000	L.S			624,190			624,189	
	Total									16,945,133	16,945,133

B-8-8 Loading fee (for temporary work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
2	Loading fee										
	(from Japan to site)										
1)	custom fee		3.0	L.S			5,900			17,700	JP-066
2)	loading	material for temporary work	2,130.8	F/T			5,500			11,719,516	JP-070
		steel material for temporary work	1,479.0	F/T			5,500			8,134,373	JP-070
		construction equipment	206.9	F/T			5,500			1,138,129	JP-070
3)	documentation		3.0	L.S			20,000			60,000	JP-068
	(from site to Japan)										
1)	custom fee		3.0	L.S			5,900			17,700	JP-066
2)	loading	material for temporary work	2,056.8	F/T		254.24			522,910.48		
		steel material for temporary work	1,428.6	F/T		254.24			363,203.38		
		construction equipment	186.9	F/T		254.24			47,525.22		
3)	documentation		3.0	L.S			20,000			60,000	JP-068
	Total								933,639.08	21,147,418	27,206,736

B-8-9 Ocean transpotation (for temporary work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
3	Ocean transpotation										
	(from Japan to site)										
1)	material for temporary work		2,130.8	F/T	180.00			383,547.82			FT-001
2)	steel material for temporary work		1,479.0	F/T	180.00			266,215.86			FT-001
3)	construction equipment		206.9	F/T	180.00			37,247.86			FT-001
	(from site to Japan)										
1)	material for temporary work		2,056.8	F/T	180.00			370,220.62			FT-001
2)	steel material for temporary work		1,428.6	F/T	180.00			257,148.00			FT-001
3)	construction equipment		186.9	F/T	180.00			33,647.86			FT-001
	(from site to the third country)										
1)	material for steel sheet pile		2,736.6	F/T	90.00			246,292.26			FT-001 /2
	Total							1,594,320.28			180,700,261

B-8-10 Port charge (for temporary work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
4	Port charge										
	(from Japan to site)										
1)	port charge		3,816.7	F/T		148.00			564,876.16		E-001
2)	trust money for entry		3,816.7	F/T		60.00			229,003.84		E-003
	(from site to Japan)										
1)	port charge		3,672.3	F/T		148.00			543,502.44		E-001
2)	trust money for entry		3,672.3	F/T		60.00			220,338.82		E-003
	Total								1,557,721.26		10,109,611

B-8-11 Inland transpotation (for temporary work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Inland transpotation										
	(from Alexandria to site)										
1)	inland transpotation	for temporary work	3,816.73	F/T		667.00			2,545,759.45		E-004
		imported sheet pile (for temporary work)	2,736.58	F/T		667.00			1,825,299.32		E-004
	(from site to Alexandria)										
2)	inland transpotation	for temporary work	3,672.3	F/T		667.00			2,449,433.31		E-004
		imported sheet pile	2,736.58	F/T		667.00			1,825,299.32		E-004
	Total								8,645,791.40		56,111,186

B-8-12 Insurance (for temporary work)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
6	Insurance										
1)	insurance (from Japan to Site)	I = CIP × 1.1 × r	1.0	L.S	2,731.00	13,277.55	1,979,481	2,731.00	13,277.55	1,979,481	2,643,310
	A: Ex-Godown amount						463,785,134				
	B: packing						13,034,719				B-7-1
	C: loading						21,069,718				B-7-2
	D: ocean transpotation				687,011.54						B-7-3
	E: port charge					793,880.00					B-7-4
	F: inland transpotation					2,545,759.45					B-7-5
	C&Pamount	C&P = A + B + C + D + E + F			687,011.54	3,339,639.45	497,889,571				
	CIP amoount	CIP = C&F × 1/(1 - 1.1 × r)			689,742.92	3,352,917.00	499,869,052				
		rate of insurance r =	0.0036								J-002
2)	insurance (from Site to Japan)	I = CIP × 1.1 × r	1.0	L.S	2,628.00	16,487.07	785,113	2,628.00	16,487.06	785,113	1,516,477
	A: Ex-Godown amount						193,487,683				
	B: packing						3,910,414				B-7-1
	C: loading					933,639.08	77,700				B-7-2
	D: ocean transpotation				661,016.48						B-7-3
	E: port charge					763,841.26					B-7-4
	F: inland transpotation					2,449,433.31					B-7-5
	C&Pamount	C&P = A + B + C + D + E + F			661,016.48	4,146,913.65	197,475,797				
	CIP amoount	CIP = C&F × 1/(1 - 1.1 × r)			663,644.51	4,163,400.72	198,260,910				
		rate of insurance r =	0.0036								J-002
	Total							5,359.00	29,764.61	2,764,594	3,565,155

B-8-13 Packing (for gate facilities)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Packing	(from Japan to site)									
1)	gate facilities	951.0 F/T	1.0	L.S			9,448,061			9,448,061	
	Total									9,448,061	9,448,061

B-8-14 Loading fee (for gate facilities)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
2	Loading fee	(from Japan to site)									
1)	custom fee		1.0	L.S			5,900			5,900	JP-066
2)	loading fee	Gate facilities	951.0	F/T			5,500			5,230,266	JP-070
3)	documennt fee		1.0	L.S			20,000			20,000	JP-068
	Total									5,256,166	5,256,166

B-8-15 Ocean transpotation (for gate facilities)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
3	Ocean transpotation	(from Japan to site)									
1)	gate facilities		951.0	F/T	180.00			171,172.36			FT-001
	Total							171,172.36			19,400,675

B-8-16 Port charge (for gate facilities)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
4	Port charge	(from Japan to site)									
1)	port charge		951.0	F/T		148.00			140,741.72		E-001
2)	trust money for entry		951.0	F/T		60.00			57,057.45		E-003
	Total								197,799.17		1,283,717

B-8-17 Inland transpotation (for gate facilities)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
5	Inland transpotation	(from Alexandria to site)									
1)	inland transpotation		951.0	F/T		667.00			634,288.73		E-004
	Total								634,288.73		4,116,534

B-8-18 Insurance (for gate facilities)

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
6	insurance	(from Japan to site)									
1)	insurance	I = CIP × 1.1 × r	1.0	L.S	681.00	3,308.17	8,824,875	681.00	3,308.16	8,824,875	8,990,339
	A: Ex-Godown amount						2,204,974,740				
	B: packing						9,448,061				B-7-1
	C: loading						5,256,166				B-7-2
	D: ocean transpotation				171,172.36						B-7-3
	E: port charge					197,799.17					B-7-4
	F: inland transpotation					634,288.73					B-7-5
	C&Pamount	C&P = A + B + C + D + E + F			171,172.36	832,087.90	2,219,678,967				
	CIP amoount	CIP = C&F × 1/(1 - 1.1 × r)			171,852.90	835,396.06	2,228,503,842				
		rate of insurance r =	0.0036								J-002
	Total							681.00	3,308.16	8,824,875	8,923,529

C SUMMARY of Building Works

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
C	Building works										
											(YEN)
C-1	Control house		1.0	L.S		1,977,714.81			1,977,714.81		12,835,369
C-2	Local contrl house	Bahr Yusef	1.0	L.S		301,888.89			301,888.88		1,959,259
C-3	Local contrl house	Ibrahimia	1.0	L.S		301,888.89			301,888.88		1,959,259
C-4	Stop log room		1.0	L.S		818,185.19			818,185.18		5,310,022
	Total								3,399,677.75		22,063,909

D SUMMARY of Integrated Water Management System

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
D	Integrated Water Management System										
											(YEN)
D-1	IWMS manufactures		1.0	L.S					15,676,546.12		101,740,784
D-2	Installation for IWMS		1.0	L.S					15,951,897.71		103,527,816
	Total								31,628,443.83		205,268,600

D-1 SUMMARY of IWMS manufactures

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	IWMS manufactures										
1)	Gauging station	Type-A & B	1.0	L.S.		14,102,971.29			14,102,971.29		
2)	Central monitoring room	in Dirout	1.0	L.S.		1,387,148.88			1,387,148.87		
3)	Monitoring room	in Minia	1.0	L.S.		186,425.96			186,425.96		
	Total								15,676,546.12		101,740,784

D-2 SUMMARY of Installation for IWMS

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	Installation for IWMS										
1)	installation for Gauging station	Type-A & B	1.0	L.S.		15,816,762.91			15,816,762.90		
2)	installation for Monitoring room	in Dirout and Minia	1.0	L.S.		135,134.81			135,134.81		
	Total								15,951,897.71		103,527,816

E SUMMARY of Dispute Board

No.	Item		Quantity	Unit	Unit Price			Amount			Amount Exchange to YEN
					US$	LE	YEN	US$	LE	YEN	
E	Dispute Board										
											(YEN)
E-1	Dispute Board		1.0	L.S				407,000			46,129,380
	Total							407,000			46,129,380

E-1 SUMMARY of Dispute Board

No.	Item		Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1	regular Site Visit										
1)	Monthly Retainer Fee	US$3,000/day	45.0	month	3,000.00			135,000.00			
2)	Monthly Retainer Fee during DNP	US$2,000/day	12.0	month	2,000.00			24,000.00			
3)	Daily Fee	2day for Site Visit ×10nos	20.0	day	3,000.00			60,000.00			
		3day for travel ×10nos	30.0	day	3,000.00			90,000.00			
4)	Expenses	Air ticket, etc.	10.0	time	5,000.00			50,000.00			
2	supposed referrals										
1)	Additional Daily Fee		2.0	time	3,000.00			6,000.00			
2)	Reviewing Submission and Drafting Decision	(3+4 days)×2	14.0	time	3,000.00			42,000.00			
	Total							407,000			46,129,380

E-8-4. Breakdown

List of Cost Breakdown

NO	Item	Detail	Unit	Unit Price		
				US$	LE	YEN
103	Operation for backhoe (excavation , loading)	Q=0.8m3	day		4,230.33	
104	Operation for backhoe (excavation , loading)	Q=0.8m3	h		551.63	
105	Operation for backhoe （excavation/loading）	Q=0.45m3	day		3,299.73	
108	Operation for giant breaker		h		524.50	
109	Operation for bull dozer (grading/compaction)	21t	day		6,858.22	
111	Operation for bull dozer (grading/compaction)	15t	day		5,898.00	
112	Operation for bull dozer (grading/compaction)	15t	h		783.00	
113	Operation for wheel loader	Q=2.1m3	h		424.50	
113-1	Operation for wheel loader (night time operating)	Q=2.1m3	h		444.74	
114	Operation for Operation for motorgrader	blade w=3.1m	day		3,212.67	
116	Operation for dump truck	10t	day		2,840.84	
128	Operation for truck crane	35t	day		7,173.40	
129	Operation for truck crane	35t	h		917.19	
130	Operation for truck crane	20t	day		4,044.51	
137	Operaion for crawler crane	50t (50-55t equivalent)	day		14,725.06	
137-1	Operaion for crawler crane (night time operating)	50t (50-55t equivalent)	day		14,820.76	
139	Operaion for rough terrain crane	25t	day	Included in rental fee		
140	Operaion for rough terrain crane	25t	h	Included in rental fee		
143	Operation for truck with crane	4t/2.9t	day	Included in rental fee		
147	Operation for trailer	30t	day		5,607.08	
149	Operation for concrete batching plant (night time operating)	30m3/h	h		747.91	
149-1	Operation for concrete batching plant (night time operating)	30m3/h	h		903.48	
151	Operation for concrete mixer car	10t	h	Included in rental fee		
153	Operation for concrete pump car	40-75m3	h		639.40	
154	Operation for tire roller (compaction)	8-20t	day		3,115.09	
155	Operation for vibration roller (compaction)	unit combined roller 10t	day		2,793.63	
156	Operation for vibration roler (compaction)	unit combined roller 2.4～2.6t	day		1,997.32	
157	Operation for vibration roller	unit 0.8-1.1t	day		1,463.80	
158	Operation for road roller (compaction)	macadam roller unit 10-12t	day		2,762.21	
159	Operation for tamper (compaction)	60-100kg	day		671.58	
160	Operation for vibratory hammer	hydraulic, 232kW	day		15,564.67	
161	Operation for press-fitting machine	100～150t	day		213.15	54,456
164	Operation for generator	200KVA	day		478.38	
168-1	Operation for generator (dewatering)	35KVA	day		1,318.36	
169	Operation for compressor	5m3/min	day		58.97	
171	Operation for submassible pump	φ2 inch	day		1,075.00	
201	excavation / loading	0.8m3 back hoe	m3		19.82	
203	excavation with worker	0.8m3 back hoe	m3		28.32	
205	excavation / loading	0.8m3 back hoe	m3		19.22	
207	Backfill (B≧4m)	compaction	m3		37.90	
208	Backfill (B＜4.0m)	vibratory roller, Tamper	m3		45.37	
210	backfill (less 1.0m)	Tamper	m3		88.49	
211	tamper	60～100KG	m3		34.13	
213	grading / compaction	15t bull dozer	m3		23.82	
214	grading / compaction	15t bull dozer	m3		52.29	
217	transpotation	10t dump truck, L=0.3km	m3		18.47	
218	Transportation	10t dump truck, L=20km	m3		135.51	
220	excavation by man power	man power	m3		154.56	
221	earth finishing for foundation	per 100m2	m2		7.36	
222	slope finishing by backhoe	0.8m3	m2		34.70	
223	finishing for earth foundation by man power	man power	m2		28.06	
224	gravel for foundation		m2		99.31	
225	gravel for backfill		m3		746.76	
226	Breaking by giant breaker (Plain concrete)	1,300kg class	m3		224.59	
227	Breaking by giant breaker (Reinforced concrete)	1,300kg class	m3		469.06	
232	breaked concrete disposal	L=20km	m3		194.01	
233	excavated soil disposal	L=0.3km	m3		42.29	
234	excavated soil disposal	L=0.3km	m3		159.33	

List of Cost Breakdown

NO	Item	Detail	Unit	Unit Price		
				US$	LE	YEN
235	excavation / loading in water	0.8m3	m3		46.86	
237	big size sand bag(fill soil)	q=1m3	bag		350.03	
240	well pump installation/removal	φ2 inch	nos		1,238.60	
241	dewatering by water pump	φ2 inch	day		1,334.29	
243	Gabion box	0.5m×1m×2m, Galvanized	m		1,173.37	3,990
244	Gabion box	1m×1m×2m, Galvanized	m		2,355.33	8,920
245	Gabion box	SUS 32A	m		75.50	
255	improvement for soft ground (treatment by mixing cement)		m3		123.60	
301	re-bar work (cutting, bending, placing)	D= less 16mm	t		18,857.16	
302	re-bar work (cutting, bending, placing)	D=D18～D25	t		17,805.74	
304	formwork (fabrication,,setting,removal)	for reinforced/plain concrete	m2		400.74	
305	formwork (fabrication,,setting,removal)	for circular structure	m2		525.17	
306	formwork (fabrication,,setting,removal)	for main structure	m2		400.74	
307	formwork (fabrication,,setting,removal)	for small structure	m2		355.10	
308	formwork (fabrication,,setting,removal)	for lean concrete	m2		209.60	
309	prefabricated scaffolding (instalation,removal)		m2		161.52	
310	pipe scaffolding (instalation,removal)	per 100m2	m2		159.86	
314	wedged pipe supporting (instalation,removal)	(t＜120cm)	m3		144.07	
316	Batching plant assembly / demolition	30m3/h	unit		109,080.79	
317	cement silo assembly/demolition	50t	unit		57,566.61	
318	Stock yard for concrete aggregate	installation / demolition (400m2)	unit		81,493.48	
320	mixing concrete	25N/mm2 (OPC)	m3		934.74	
320-1	mixing concrete (night time operating)	25N/mm2 (OPC)	m3		940.37	
321	mixing concrete	25N/mm2 (SRC)	m3		963.10	
321-1	mixing concrete (night time operating)	25N/mm2 (SRC)	m3		968.73	
322	mixing concrete	18N/mm2 (OPC)	m3		893.34	
323	mixing concrete	12N/mm2 (OPC)	m3		814.61	
324	mixing concrete	25N/mm2 (OPC, underwater concrete)	m3		897.50	
325	transpotation for concrete by truck mixer	L=0.2km, one way	m3	Included in rental fee		
330	placing concrete (25N/mm2, OPC)	reinforced concrete (over 30m3)	m3		1,356.29	
332	placing concrete (25N/mm2, SRC)	reinforced concrete (over 30m3)	m3		1,386.07	
332-1	placing concrete (25N/mm2, SRC) (night time operating)	reinforced concrete (over 30m3)	m3		1,446.03	
333	placing concrete (18N/mm2, OPC)	plain concrete (less 30m3)	m3		1,479.36	
334	placing concrete (18N/mm2, OPC)	plain concrete (over 30m3)	m3		1,326.22	
336	placing concrete (25N/mm2, OPC)	reinforced concrete (small size structure)	m3		1,257.46	
338	placing concrete (25N/mm2, OPC) by manpower	reinforced concrete (small structure)	m3		1,233.99	
339	placing concrete (18N/mm2) by manpower	plain concrete (small structure)	m3		1,109.76	
340	curing concrete	reinforced concrete	m3		7.83	
341	curing concrete	plain concrete	m3		12.92	
342	curing concrete	reinforced concrete (small size structure)	m3		30.22	
343	installation for water stop	PVC, w=230mm	m		37.54	2,214
344	installation for water stop	water-swelling	m		16.56	1,975
345	installation for joint filler	joint filler (bitumen), slip bar	m2		403.70	
347	anticorrosion painting	bitumen painting	m2		106.14	
348	steel step	W=300mm	nos		370.65	
350	installation for joint bar	D22	m		83.45	
351	installation for joint filler		m2		45.20	
352	foundation for steel stairs		nos		14,774.67	
401	stone masonry with mortar (slope inclination less 1:1)	cobble stone, t=35cm	m2		841.71	
405	stone rip rap	r≧24m	m3		766.83	
407	stone rip rap	r＜9m	m3		606.24	
408	grading for stone rip rap	per 100m2	m2		76.86	
409	missing number					
411	installation for geotextile		m2		46.42	
452	installation and removal for fence for protect water pollution	(number of anchor@4.0m)	m		1,112.18	
502	base course	roadway, 1 layer	m2		132.78	

List of Cost Breakdown

NO	Item	Detail	Unit	Unit Price		
				US$	LE	YEN
512	hand rail	Galvanized steel Handrail	m		1,395.28	
514	guard pipe	installation for guard pipe	m		1,212.12	
515	installation for grating		m2		232.34	18,090
516	installation for expansion joint	displacement ⊿=20mm	m		232.34	35,190
517	installation for expansion joint	displacement⊿=35mm	m		232.34	55,800
518	installation for steel stairs		nos		129,944.00	
604	H-beam driving	H400, driving length L≦12m (Nmax＜50)	nos		2,083.01	
605	H-beam driving	H400, driving length L≦9m (Nmax＜50)	nos		1,641.77	
606	H-beam driving	H350, driving length L≦12m (Nmax＜50)	nos		1,730.41	
607	H-beam driving	H350, driving length L≦9m (Nmax＜50)	nos		1,407.14	
608	H-beam driving	H300, driving length L≦6m (Nmax＜50)	nos		880.52	
609	H-beam driving	H250, driving length L≦4m (Nmax＜50)	nos		673.91	
610	H-beam driving	H200 or less, driving length L≦4m (Nmax＜50)	nos		615.91	
611	removal for sheet pile / H-beam	removing length L≦15m (Nmax＜50)	sheet(piece)		658.61	
612	Removing sheet pile / H-beam	removing length L≦12m (Nmax＜50)	sheet(piece)		572.16	
613	Removing sheet pile / H-beam	removing length L≦9m (Nmax＜50)	sheet(piece)		486.33	
614	Removing sheet pile / H-beam	removing length L≦6m (Nmax＜50)	sheet(piece)		428.48	
615	Removing sheet pile / H-beam	removing length L≦4m (Nmax＜50)	sheet(piece)		371.90	
616	Installation for tie-rod and waling	(without material fee)	t		3,311.13	
618	Installation for deck plate	deck plate	m2		201.95	
619	removal for deck plate	deck plate	m2		103.28	
620	Installation for superstructure	big size	t		2,736.49	
621	removal for superstructure	big size	t		1,511.24	
622	Installation for bridge railing	bridge railing	m		22.56	
623	removal for bridge railing	bridge railing	m		12.88	
624	Rular work for piling	H-300 driving, L≦4m	piece		824.42	
625	Rular work for piling	H-300, removal, L≦4m	piece		797.43	
626	Rular work for piling	Installation and removal for guide frame	piece		12,463.45	
629	Installation for substructure	H-beam, Channel, etc.	t		5,381.06	
630	removal for substructure	H-beam, Channel, etc.	t		2,884.85	
631	Installation for platform	H-beam	t		910.22	
632	removal for platform	small size material	t		574.31	
633	Installation/removal for stage end		m2		95.64	
634	Installation for steel plate		m2		3.11	
635	removal for steel plate		m2		2.46	
642	Welding for steel plate	Fillet welding 9mm～12mm, face down	m		555.67	
643	Welding for steel plate (PU)	Fillet welding 9mm～12mm, face down	place		1,944.85	
646	Sheet pile cutting	for Steel sheet pile, H-beam	m		264.24	
649	Sheet pile driving	PU28+1, driving length L≦15m (Nmax＜50)	sheet		1,730.41	
650	Sheet pile driving	PU28+1, driving length L≦12m (Nmax＜50)	sheet		1,466.45	
651	Sheet pile driving	PU28+1, driving length L≦9m (Nmax＜50)	sheet		1,173.16	
652	Sheet pile driving	PU28+1, driving length L≦6m (Nmax＜50)	sheet		939.18	
653	Sheet pile driving	PU28+1, driving length L≦4m (Nmax＜50)	sheet		763.21	
654	Sheet pile driving	PU18, driving length L≦15m (Nmax＜50)	sheet		1,466.45	
655	Sheet pile driving	PU18, driving length L≦12m (Nmax＜50)	sheet		1,231.17	
656	Sheet pile driving	PU18, driving length L≦9m (Nmax＜50)	sheet		997.84	
657	Sheet pile driving	PU12, driving length L≦12m (Nmax＜50)	sheet		1,055.19	
658	Sheet pile driving	PU12, driving length L≦9m (Nmax＜50)	sheet		880.52	
659	Sheet pile driving	PU12, driving length L≦6m (Nmax＜50)	sheet		761.90	
660	Sheet pile driving	PU12, driving length L≦4m (Nmax＜50)	sheet		645.24	
661	Sheet pile driving	PU12, driving length L≦2m (Nmax＜50)	sheet		527.92	
662	Sheet pile press fitting	PU, driving length L≦15m (Nmax≦25)	sheet		165.71	5,233
663	Sheet pile press fitting	PU, driving length L≦12m (Nmax≦25)	sheet		130.98	4,139
664	Sheet pile press fitting	PU, driving length L≦9m (Nmax≦25)	sheet		103.68	3,280
665	Mobilization & demobilization	press fitting machine for sheet pile	LS		700.36	19,332
1001	labor fee for installation for gate facility (gate, gate guide, lifting equipment)	2 sheet roller gate	unit		2,211,540.73	
1002	materaial fee for gate installation(gate, gate guide, lifting equipment)	2 sheet roller gate	unit		959,366.37	

List of Cost Breakdown

NO	Item	Detail	Unit	Unit Price		
				US$	LE	YEN
1003	Crane operating fee(80t) for installation for gate facility(gate, gate guide, lifting equipment)	2 sheet roller gate	unit		1,708,697.36	
1004	Welder operating fee for installation for gate facility(gate, gate guide, lifting equipment)	2 sheet roller gate			298,370.95	
1005	labor fee for stop log installation (gate guide)		unit		809,772.25	
1006	labor fee for stop log installation (over head crane)		unit		27,802.88	
1007	material fee for stop log installation (over head crene, gate guide)	plate girder stop log (4 vents)	unit		353,289.35	
1008	machine fee for stop log installation		unit		96,731.31	
1009	installation of remote operation panel		nos		6,860.00	
1010	installation for electric power distribution board		nos		3,388.00	
1011	backup generator	50KVA	nos		33,246.50	
1012	water level indicator	1 units	unit		2,744.00	
1013	Installation for Steet light (mercury lump)	400W	基		18,533.63	
1014	electric cable	CV 3.5sq -2C	m		43.25	
1015	electric cable	CV 8sq -2C	m		66.44	
1016	electric cable	CV 14sq -2C	m		92.29	
1017	electric cable	CV 22sq -2C	m		124.83	
1018	electric cable	CV 2sq -3C	m		41.83	
1019	electric cable	CV 5.5sq -3C	m		71.80	
1020	electric cable	CV 8sq -3C	m		87.30	
1021	electric cable	CV 14sq -3C	m		123.72	
1022	electric cable	CV 22sq -3C	m		168.44	
1023	electric cable	CV 38sq -3C	m		254.94	
1024	electric cable	CV 8sq -4C	m		110.31	
1025	electric cable	CV 38sq -4C	m		327.64	
1026	electric cable	CVV 2sq -4C	m		52.36	
1027	electric cable	CVV 2sq -5C	m		63.91	
1028	electric cable	CVV 2sq -8C	m		86.62	
1029	electric cable	CVV 2sq -10C	m		106.68	
1030	electric cable	CVV 2sq -20C	m		191.53	
1031	electric cable	CVV 2sq -30C	m		253.71	
1032	electric cable	CVVS 2sq -2C	m		47.59	
1033	electric cable	CVVS 2sq -10C	m		124.83	
1034	electric cable	CVVS 2sq -15C	m		174.84	
1035	electric cable	CVVS 2sq -30C	m		272.75	
1036	electric cable	CPEV 0.9sq -3P	m		48.34	
1037	electric wire	IV 3.5sq	m		25.93	
1038	electric wire	IV 5.5sq	m		29.50	
1039	electric wire	IV 8sq	m		36.46	
1040	electric wire	IV 14sq	m		52.56	
1041	electric wire	IV 22sq	m		69.60	
1042	conduits	FEP 30	m		72.87	
1043	conduits	FEP 40	m		83.30	
1044	conduits	FEP 50	m		96.10	
1045	conduits	FEP 65	m		114.00	
1046	conduits	FEP 80	m		139.03	
1047	conduits	FEP 100	m		188.15	
1048	conduits	FEP 125	m		232.23	
1049	conduits	G 28	m		163.84	
1050	conduits	G 36	m		201.06	
1051	handhole	900×900×900	nos		18,600.65	
1052	earth work (excavation／backfill)		m3		116.67	
1101	installation for gate facility (gate, groove, lifting equipment)		unit		5,372,924.63	
1102	stop log installation materal fee (over head crene, groove)		unit		1,351,345.63	

Breakdown No.103

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
103	Operation for backhoe (excavation , loading)			day							
	Q=0.8m3										
	operator		1.00	person		435.00			435.00		A-025
	fuel		114.16	Lit		2.00			228.33		I-017
	rental fee		1.00	day		3,567.00			3,567.00		B-002
	incidental cost		1.00	unit							
	P02-11										
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.175 Lit/kW-h									
	2) unit power	104. kW									
	3) standard operating hour a year	690.hours									
	4) standard operating day a year	110. days									
	Total								4,230.33		

Breakdown No.104

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
104	Operation for backhoe (excavation , loading)			h							
	Q=0.8m3										
	operator		0.16	person		435.00			69.35		A-025
	diesel		18.20	Lit		2.00			36.40		I-017
	rental fee for backhoe		1.00	h		445.88			445.88		B-002/8hr
	Incidental costs		1.00	unit							
	P02-11										
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.175 Lit/kW-h									
	2) unit power	104. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	690.hours									
	2) standard operating day a year	110. days									
	Total								551.63		

Breakdown No.105

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
105	Operation for backhoe （excavation/loading）			day							
	Q=0.45m3										
	operator		1.00	person		435.00			435.00		A-025
	fuel		65.86	Lit		2.00			131.73		I-017
	rental fee		1.00	day		2,733.00			2,733.00		B-001
	incidental cost		1.00	unit							
	P02-9										
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.175 Lit/kW-h									
	2) unit power	60. kW									
	3) standard operating hour a year	690.hours									
	4) standard operating day a year	110. days									
	Total								3,299.73		

Breakdown No.108

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
108	Operation for giant breaker			h							
	back hoe, with 1300kg class breaker										
	back hoe 20t class										
	operator		0.16	person		435.00			69.35		A-025
	fuel		18.20	Lit		2.00			36.40		I-017
	rental fee		1.00	hour		418.75			418.75		B-004/8hr
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.175 Lit/kW-h									
	2) unit power	104. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	690.hours									
	2) standard operating day a year	110. days									
	Total								524.50		

Breakdown No.109

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
109	Operation for bull dozer (grading/compaction)			day							
	21t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		174.11	Lit		2.00			348.22		I-017
	rental fee		1.00	day		6,075.00			6,075.00		B-023
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.175 Lit/kW-h									
	2) unit power	152. kW									
	3) standard operating hour a year	720.hours									
	4) standard operating day a year	110. days									
	Total								6,858.22		

Breakdown No.111

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
111	Operation for bull dozer (grading/compaction)			day							
	15t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		87.50	Lit		2.00			175.00		I-017
	rental fee		1.00	day		5,288.00			5,288.00		B-022
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.175 Lit/kW-h									
	2) unit power	100. kW									
	3) standard operating hour a year	400. hours									
	4) standard operating day a year	80.days									
	Total								5,898.00		

Breakdown No.112

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
112	Operation for bull dozer (grading/compaction)			h							
	15t										
	operator		0.20	person		435.00			87.00		A-025
	fuel		17.50	Lit		2.00			35.00		I-017
	rental fee		1.00	hour		661.00			661.00		B-022/8hr
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.175 Lit/kW-h									
	2) unit power	100. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	400. hours									
	2) standard operating day a year	80.days									
	Total								783.00		

Breakdown No.113

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
113	Operation for wheel loader			h							
	Q=2.1m3										
	operator		0.21	person		435.00			92.02		A-025
	fuel		13.92	Lit		2.00			27.85		I-017
	rental fee		1.00	hour		304.63			304.63		B-024/8hr
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.153 Lit/kW-h									
	2) unit power	91. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	520.hours									
	2) standard operating day a year	110.days									
	Total								424.50		

Breakdown No.113-1

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
113-1	Operation for wheel loader (night time operating)			h							
	Q=2.1m3										rate of night work
											1.22
	operator		0.21	person		530.70			112.26		A-025 × 1.22
	fuel		13.92	Lit		2.00			27.85		I-017
	rental fee		1.00	hour		304.63			304.63		B-024/8hr
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.153 Lit/kW-h									
	2) unit power	91. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	520.hours									
	2) standard operating day a year	110.days									
	Total								444.74		

Breakdown No.114

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
114	Operation for Operation for motorgrader			day							
	blade w=3.1m										
	operator		1.00	person		435.00			435.00		A-025
	fuel		49.83	Lit		2.00			99.67		I-017
	rental fee		1.00	day		2,678.00			2,678.00		B-050
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.108 Lit/kW-h									
	2) unit power	85. kW									
	3) standard operating hour a year	380. hours									
	4) standard operating day a year	70. days									
	Total								3,212.67		

Breakdown No.116

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
116	Operation for dump truck			day							
	10t										
	operator		1.00	person		440.00			440.00		A-035
	fuel		72.92	Lit		2.00			145.84		I-017
	rental fee		1.00	day		2,255.00			2,255.00		B-026
	incidental cost		1.00	day							included in rental fee
	incidental costs		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.05 Lit/kW-h									
	2) unit power	246. kW									
	3) standard operating hour a year	830. hours									
	4) standard operating day a year	140. days									
	Total								2,840.84		

Breakdown No.128

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
128	Operation for truck crane			day							
	35t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		65.20	Lit		2.00			130.40		I-017
	rental fee		1.00	day		6,608.00			6,608.00		B-007
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.044 Lit/kW-h									
	2) unit power	239. kW									
	3) standard operating hour a year	620. hours									
	4) standard operating day a year	100.days									
	Total								7,173.40		

Breakdown No.129

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
129	Operation for truck crane			h							
	35t										
	operator		0.16	person		435.00			70.16		A-025
	fuel		10.52	Lit		2.00			21.03		I-017
	rental fee		1.00	hour		826.00			826.00		B-007/8hr
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.044 Lit/kW-h									
	2) unit power	239. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	620. hours									
	2) standard operating day a year	100.days									
	Total								917.19		

Breakdown No.130

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
130	Operation for truck crane			day							
	20t										
	operator		0.16	person		435.00			70.16		A-025
	fuel		5.68	Lit		2.00			11.35		I-017
	rental fee		1.00	day		3,963.00			3,963.00		B-006
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.044 Lit/kW-h									
	2) unit power	129. kW									
	3) standard operating hour a year	620. hours									
	4) standard operating day a year	100.days									
	Total								4,044.51		

Breakdown No.137

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
137	Operaion for crawler crane			day							
	50t (50-55t equivalent)										
	operator		1.00	person		435.00			435.00		A-025
	fuel		68.53	Lit		2.00			137.06		I-017
	rental fee		1.00	day		14,153.00			14,153.00		B-013
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.089 Lit/kW-h									
	2) unit power	132. kW									
	3) standard operating hour a year	700. hours									
	4) standard operating day a year	120. days									
	Total								14,725.06		

Breakdown No.137-1

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
137-1	Operaion for crawler crane (night time operating)			day							
	50t (50-55t equivalent)										rate of night work
											1.22
	operator		1.00	person		530.70			530.70		A-025 × 1.22
	fuel		68.53	Lit		2.00			137.06		I-017
	rental fee		1.00	day		14,153.00			14,153.00		B-013
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.089 Lit/kW-h									
	2) unit power	132. kW									
	3) standard operating hour a year	700. hours									
	4) standard operating day a year	120. days									
	Total								14,820.76		

Breakdown No.139

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
139	Operaion for rough terrain crane			day							
	25t	included rental fee									
	operator			person		435.00					A-025
	fuel			Lit		2.00					I-017
	rental fee			day		3,833.00					B-019
	incidental cost			unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.103 Lit/kW-h									
	2) unit power	193. kW									
	3) standard operating hour a year	700. hours									
	4) standard operating day a year	120. days									
	Total										

Breakdown No.140

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
140	Operaion for rough terrain crane			h							
	25t	included rental fee									
	operator			person		435.00					A-025
	fuel			Lit		2.00					I-017
	rental fee			hour		479.13					B-019/8hr
	incidental cost			unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.103 Lit/kW-h									
	2) unit power	193. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	700. hours									
	2) standard operating day a year	120. days									
	Total										

Breakdown No.143

included rental fee

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
143	Operation for truck with crane			day							
	4t/2.9t										
	operator			person		435.00					A-025
	fuel			Lit		2.00					I-017
	rental fee			day		2,313.00					B-030
	incidental cost			unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.05 Lit/kW-h									
	2) unit power	132. kW									
	3) standard operating hour a year	760. hours									
	4) standard operating day a year	130.days									
	Total										

Breakdown No.147

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
147	Operation for trailer			day							
	30t										
	operator		1.00	person		440.00			440.00		A-035
	fuel		111.04	Lit		2.00			222.08		I-017
	rental fee		1.00	day		4,945.00			4,945.00		B-032
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.075 Lit/kW-h									
	2) unit power	235. kW									
	3) standard operating hour a year	630. hours									
	4) standard operating day a year	100. days									
	Total								5,607.08		

Breakdown No.149

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
149	Operation for concrete batching plant (night time operating)			h							
	30m3/h										
	incident cost		1.00	unit							(t=4)
	operator	N=1	0.46	person		435.00			200.10		A-025 0.91/t*1
	assistant operator	N=1.5	0.68	person		184.00			125.58		A-022 0.91/t*N
	Forman	N=1.2	0.55	person		429.00			234.23		A-020 0.91/t*N
	Common labor	N=3	0.80	person		184.00			147.20		A-022 1/7.5*N
	electric fee	20.4kW	20.40	kWh		2.00			40.80		I-013
	rental fee		1.00	h							included A3
	Total								747.91		

Breakdown No.149-1

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
149-1	Operation for concrete batching plant (night time operating)			h							
	30m3/h										rate of night work
											1.22
	incident cost		1.00	unit							
	operator	N=1	0.46	person		530.70			244.12		A-025×1.22
	assistant operator	N=1.5	0.68	person		224.48			153.21		A-022×1.22
	Forman	N=1.2	0.55	person		523.38			285.77		A-020×1.22
	Common labor	N=3	0.80	person		224.48			179.58		A-022×1.22
	electric fee	20.4kW	20.40	kWh		2.00			40.80		I-013
	rental fee		1.00	h							included A3
	Total								903.48		

Breakdown No.151

included rental fee

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
151	Operation for concrete mixer car			h							
	10t										
	operator			person		440.00					A-035
	fuel			Lit		2.00					I-017
	rental fee			hour		314.13					B-046/8hr
	incidental cost			hour							included in rental fee
	incidental costs			unit							
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.059 Lit/kW-h									
	2) unit power	152. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	780.hours									
	2) standard operating day a year	160.days									
	Total										

Breakdown No.153

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
153	Operation for concrete pump car			h							
	40-75m3										
	operator		0.16	person		435.00			70.81		A-025
	fuel		35.67	Lit		2.00			71.34		I-017
	rental fee		1.00	hour		497.25			497.25		B-049/8hr
	incidental cost		1.00	unit							included in rental fee
	fuel consumption										
	.= 1) x 2)										
	1) fuel consumption per hour	.41 Lit/kW-h									
	2) unit power	87. kW									
	Operator										
	T = 1/ 1) / 2)										
	1) standard operating hour a year	430. hours									
	2) standard operating day a year	70.days									
	Total								639.40		

Breakdown No.154

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
154	Operation for tire roller (compaction)			day							
	8-20t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		38.54	Lit		2.00			77.09		I-017
	rental fee		1.00	day		2,603.00			2,603.00		B-042
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.1 Lit/kW-h									
	2) unit power	71. kW									
	3) standard operating hour a year	380.hours									
	4) standard operating day a year	70. days									
	Total								3,115.09		

Breakdown No.155

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
155	Operation for vibration roller (compaction)			day							
	unit combined roller 10t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		46.82	Lit		2.00			93.63		I-017
	rental fee		1.00	day		2,265.00			2,265.00		B-041
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.152 Lit/kW-h									
	2) unit power	77. kW									
	3) standard operating hour a year	400. hours									
	4) standard operating day a year	100. days									
	Total								2,793.63		

Breakdown No.156

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
156	Operation for vibration roler (compaction)			day							
	unit combined roller 2.4～2.6t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		12.16	Lit		2.00			24.32		I-017
	rental fee		1.00	day		1,538.00			1,538.00		B-040
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.152 Lit/kW-h									
	2) unit power	20. kW									
	3) standard operating hour a year	400. hours									
	4) standard operating day a year	100. days									
	Total								1,997.32		

Breakdown No.157

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
157	Operation for vibration roller			day							
	unit 0.8-1.1t										
	Skilled labor		1.00	person		336.00			336.00		A-021
	fuel		4.90	Lit		2.00			9.80		I-017
	rental fee		1.00	day		1,118.00			1,118.00		B-039
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.201 Lit/kW-h									
	2) unit power	5. kW									
	3) standard operating hour a year	390.hours									
	4) standard operating day a year	80.days									
	Total								1,463.80		

Breakdown No.158

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
158	Operation for road roller (compaction)			day							
	macadam roller unit 10-12t										
	operator		1.00	person		435.00			435.00		A-025
	fuel		31.10	Lit		2.00			62.21		I-017
	rental fee		1.00	day		2,265.00			2,265.00		B-041
	incidental cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.108 Lit/kW-h									
	2) unit power	56. kW									
	3) standard operating hour a year	360.hours									
	4) standard operating day a year	70. days									
	Total								2,762.21		

Breakdown No.159

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
159	Operation for tamper (compaction)			day							
	60-100kg										
	Skilled labor		1.00	person		336.00			336.00		A-021
	fuel (gasoline)		4.64	Lit		4.00			18.58		I-016
	rental fee	tamer	1.00	day		317.00			317.00		B-038
	incident cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.301 Lit/kW-h									
	2) unit power	3. kW									
	3) standard operating hour a year	360.hours									
	4) standard operating day a year	70. days									
	Total								671.58		

Breakdown No.160

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
160	Operation for vibratory hammer			day							
	hydraulic, 232kW										
	rental fee	vibratory hammer 232kw	1.00	day							included A3
	Operaion for crawler crane	50t	1.00	day		14,725.06			14,725.06		Breakdown No.137
	fuel		419.80	Lit		2.00			839.61		Breakdown No.164
	Incidental costs		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.308 Lit/kW-h									
	2) unit power	232. kW									
	3) standard operating hour a year	470.hours									
	4) standard operating day a year	80. days									
	Total								15,564.67		

Breakdown No.161

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
161	Operation for press-fitting machine	for sheet pile		day							
	100～150t										
	rental fee		1.00	day			54,456			54,456	JE-009
	Operaion for rough terrain crane	25t	1.00	day							included in A-13
	fuel		106.58	Lit		2.00			213.15		I-017
	Incidental costs		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.145 Lit/kW-h									
	2) unit power	147. kW									
	3) standard operating hour a year	450.hours									
	4) standard operating day a year	90. days									
	Total								213.15	54,456	

Breakdown No.164

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
164	Operation for generator			day							
	200KVA										
	fuel		239.19	Lit		2.00			478.38		I-017
	rental fee		1.00	day							included A3
	incident cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3)										
	1) fuel consumption rate a hour	.17 Lit/kW-h									
	2) unit power	201. kW									
	3) operating hours	7. hours									
	Total								478.38		

Breakdown No.168-1

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
168-1	Operation for generator (dewatering)			day							
	35KVA										
	fuel		187.68	Lit		2.00			375.36		I-017
	rental fee		1.00	day		943.00			943.00		B-061
	incident cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3)										
	1) fuel consumption rate a hour	.17 Lit/kW-h									
	2) unit power	46. kW									
	3) operating hours	24.hours									
	Total								1,318.36		

Breakdown No.169

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
169	Operation for compressor			day							
	5m3/min										
	fuel		29.48	Lit		2.00			58.97		I-017
	rental fee		1.00	day							B-034
	incident cost		1.00	unit							
	fuel consumption										
	.= 1) x 2) x 3) / 4)										
	1) fuel consumption rate a hour	.189 Lit/kW-h									
	2) unit power	39. kW									
	3) standard operating hour a year	320.hours									
	4) standard operating day a year	80.days									
	Total								58.97		

Breakdown No.171

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
171	Operation for submassible pump			day							
	φ2 inch										
	rental fee		1.00	day		1,075.00			1,075.00		B-056
	Incidental costs		1.00	unit							
	Total								1,075.00		

Breakdown No.201

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
201	excavation / loading			m3							
	0.8m3 back hoe										D=300
	per 100m3										
	Operation for backhoe		0.47	day		4,230.33			1,982.33		100/D=100/300=0.33
											Breakdown No.103
	Incidental costs		1.00	unit							
		sub total							1,982.33		
		per 1m3							19.82		
	Total								19.82		

Breakdown No.203

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
203	excavation with worker			m3							
	0.8m3 back hoe										
	per 100m3										
	Operation for backhoe	0.8m3	0.64	day		4,230.33			2,703.18		D/220=100/220=0.45
											Breakdown No.103
	Common labor		0.70	person		184.00			128.80		A-022
	Incidental costs			unit							
		sub total							2,831.98		
		per 1m3							28.32		
	Total								28.32		

Breakdown No.205

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
205	excavation / loading			m3							
	0.8m3 back hoe										
	per 100m3										
	Operation for backhoe	0.8m3	0.45	day		4,230.33			1,922.26		D/310=100/310=0.32
											Breakdown No.103
	Incidental costs		1.00	unit							
		sub total							1,922.26		
		per 1m3							19.22		
	Total								19.22		

Breakdown No.207

建工 埋戻工A

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
207	Backfill (B≧4m)	Type-A		m3							
	compaction										
	per 100m3										
	Operation for backhoe	0.8m3	2.84	h		551.63			1,566.63		Breakdown No.104
	bull dozer	15t, 100/350 x 7h	2.84	h		783.00			2,223.72		Breakdown No.112
	Incidental costs		1.00	unit							
		sub total							3,790.35		
		per 1m3							37.90		
	Total								37.90		

Breakdown No.208

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
208	Backfill (B＜4.0m)	Type-B		m3							
	vibratory roller, Tamper										
	per 100m3										
	Common labor		1.60	person		184.00			294.40		A-022
	Operation for backhoe	0.8m3	3.98	h		551.63			2,193.28		Breakdown No.104
	Operation for vibratory roller	0.8～1.1t	1.31	h		1,463.80			1,912.31		
	tamper	60～100KG	4.00	m3		34.13			136.52		Breakdown No.211
	Incidental costs		1.00	unit							
		sub total							4,536.51		
		per 1m3							45.37		
	Total								45.37		

Breakdown No.210

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
210	backfill (less 1.0m)	Type-D		m3							
	Tamper										
	per 100m3										
	Common labor		4.00	person		184.00			736.00		A-022
	Operation for backhoe	0.8m3	8.52	h		551.63			4,699.89		Breakdown No.104
	tamper	60～100KG	100.00	m3		34.13			3,413.00		Breakdown No.211
	Incidental costs		1.00	unit							
		sub total							8,848.89		
		per 1m3							88.49		
	Total								88.49		

Breakdown No.211

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
211	tamper			m3							
	60～100KG										
	per 100ｍ3										
	Common labor		3.00	person		184.00			552.00		A-022
	Operation for tamper	60～100KG	4.26	day		671.58			2,860.93		Breakdown No.159
	Incidental costs		1.00	unit							
		sub total							3,412.93		
		per 1m3							34.13		
	Total								34.13		

Breakdown No.213 土改 P62

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
213	grading / compaction			m3							
	15t bull dozer										
	per 100m3										
	Operation for bull dozer	15t	0.40	day		5,898.00			2,345.04		100/D=100/350=0.28
											Breakdown No.111
	Common labor		0.20	person		184.00			36.80		A-022
	Incidental costs		1.00	unit							
		sub total							2,381.84		
		per 1m3							23.82		
	Total								23.82		

Breakdown No.214

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
214	grading / compaction			m3							
	15t bull dozer										
	per 100m3										
	Operation for bull dozer	15t	0.88	day		5,898.00			5,192.60		100/D=100/160=0.62
											Breakdown No.111
	Common labor		0.20	person		184.00			36.80		A-022
	Incidental costs		1.00	unit							
		sub total							5,229.40		
		per 1m3							52.29		
	Total								52.29		

Breakdown No.217

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
T 217	transpotation			m3							
	10t dump truck, L=0.3km										
	per 100m3										
	Operation for dump truck	10t	0.65	day		2,840.84			1,846.55		Breakdown No.116
	Incidental costs		1.00	unit							
		sub total							1,846.55		
		per 1m3							18.47		
	Total								18.47		

Breakdown No.218

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
218	Transportation			m3							
	10t dump truck, L=20km										
	per 100m3										
	Operation for dump truck	10t	4.77	day		2,840.84			13,550.81		Breakdown No.116
	Incidental costs		1.00	unit							
		sub total							13,550.81		
		per 1m3							135.51		
	Total								135.51		

Breakdown No.220

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
220	excavation by man power			m3							
	man power										
	per 10m3										
	Common labor		8.40	person		184.00			1,545.60		A-022
	Incidental costs		1.00	unit							
		sub total							1,545.60		
		per 1m3							154.56		
	Total								154.56		

Breakdown No.221

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
221	earth finishing for foundation			m2							
	per 100m2										
	Common labor		4.00	person		184.00			736.00		A-022
		sub total							736.00		
		per 1m2							7.36		
	Total								7.36		

Breakdown No.222

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
222	slope finishing by backhoe			m2							
	0.8m3										
	per 100m2										
	Forman		0.40	person		429.00			171.60		A-020
	Common labor		0.90	person		184.00			165.60		A-022
	Operation for backhoe	0.8m3	5.68	h		551.63			3,133.26		Breakdown No.104
	Incidental costs		1.00	unit							
		sub total							3,470.46		
		per 1m2							34.70		
	Total								34.70		

Breakdown No.223

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
223	finishing for earth foundation by man power			m2							
	man power										
	per 100m2										
	Forman		1.60	person		429.00			686.40		A-020
	Common labor		8.60	person		184.00			1,582.40		A-022
	Operation for tamper	60～100KG	0.80	day		671.58			537.26		Breakdown No.159
	Incidental costs		1.00	unit							
		sub total							2,806.06		
		per 1m2							28.06		
	Total								28.06		

Breakdown No.224

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
224	gravel for foundation			m2							
	per 100m2										
	Forman		0.78	person		429.00			334.62		0.6*100/D=0.6*100/155=0.39
											A-020
	Skilled labor		1.42	person		336.00			477.12		1.1*100/D=1.1*100/155=0.71
											A-021
	Common labor		3.74	person		184.00			688.16		2.9*100/D=2.9*100/155=1.87
											A-022
	gravel	t=100	12.00	m3		471.00			5,652.00		100* t (m) *1.2
											C-031
	Operation for backhoe	0.8m3	0.65	day		4,230.33			2,749.71		1*100/D=1*100/155=0.65
											Breakdown No.103
	Incidental costs	worker+operation	1.00	unit					29.75		0.7%
		sub total							9,931.36		
		per 1m2							99.31		
	Total								99.31		

Breakdown No.225

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
225	gravel for backfill			m3							
	per 10m3										
	Forman		0.36	person		429.00			154.44		0.7*10/D=0.7*10/38=0.18
											A20
	Skilled labor		0.68	person		336.00			228.48		1.3*10/D=1.3*10/38=0.34
											A21
	Common labor		1.74	person		184.00			320.16		3.3*10/D=3.3*10/38=0.87
											A22
	gravel		12.00	m3		471.00			5,652.00		10*1.2
											C31
	Operation for backhoe	0.8m3	0.26	day		4,230.33			1,099.89		1*10/D= 1*10/38=0.26
											Breakdown No.103
	Incidental costs	worker+operation	1.00	unit					12.62		0.7%
		sub total							7,467.59		
		per 1m3							746.76		
	Total								746.76		

Breakdown No.226

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
226	Breaking by giant breaker (Plain concrete)			m3							
	1,300kg class										
	per 10m3										
	Forman		0.50	person		429.00			214.50		A-020
	Welder			person		415.00					A-030
	Common labor		0.80	person		184.00			147.20		A-022
	Operation for giant breaker	1300kg class	3.55	h		524.50			1,861.98		Breakdown No.108
	Incidental costs		1.00	unit					22.24		1.0%
		sub total							2,245.92		
		per 1m3							224.59		
	Total								224.59		

Breakdown No.227

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
227	Breaking by giant breaker (Reinforced concrete)			m3							
	1,300kg class										
	per 10m3										
	Forman		0.60	person		429.00			257.40		A-020
	Welder		0.70	person		415.00			290.50		A-030
	Common labor		1.70	person		184.00			312.80		A-022
	Operation for giant breaker	1300kg class	6.96	h		524.50			3,649.47		Breakdown No.108
	Incidental costs		1.00	unit					180.41		4%
		sub total							4,690.58		
		per 1m3							469.06		
	Total								469.06		

Breakdown No.232

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
) 232	breaked concrete disposal			m3							
	L=20km										D=260
	per 10m3										
	Operation for back hoe	0.8m3	0.05	day		4,230.33			228.27		10/D=10/260=0.038
											Breakdown No.103
	grading / compaction	15t bull dozer	5.00	m3		52.29			261.45		Breakdown No.214
	dump truck	10t	10.16	m3		135.51			1,376.78		rate=1.016
											Breakdown No.218
	Common labor		0.40	person		184.00			73.60		A-022
		sub total							1,940.10		
		per 1m3							194.01		
	Total								194.01		

Breakdown No.233

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
233	excavated soil disposal			m3							
	L=0.3km										
	per 1m3										
	Operation for dump truck	10t	1.00	m3		18.47			18.47		Breakdown No. 217
	grading / compaction	15t bull dozer	1.00	m3		23.82			23.82		Breakdown No. 213
	Total								42.29		

Breakdown No.234

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
234	excavated soil disposal			m3							
	L=20km										
	per 1m3										
	Operation for dump truck	10t	1.00	m3		135.51			135.51		Breakdown No. 218
	grading / compaction	15t bull dozer	1.00	m3		23.82			23.82		Breakdown No. 213
	Total								159.33		

Breakdown No.235

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
235	excavation / loading in water			m3							
	0.8m3										D=100
	per 100m3										
	Operation for backhoe	Long arm	1.42	day		3,299.73			4,685.62		100/D=100/100=1.00
											Breakdown No.105
	Incidental costs		1.00	unit							
		sub total							4,685.62		
		per 1m3							46.86		
	Total								46.86		

Breakdown No.237

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
237	big size sand bag(fill soil)			bag							
	q=1m3										
	per 10 bag										
	Forman		0.23	person		429.00			98.08		10/D=10/62=0.161
											A-020
	Skilled labor		0.23	person		336.00			76.82		10/D=10/62=0.161
											A-021
	Common labor		0.23	person		184.00			42.07		10/D=10/62=0.161
											A-022
	big size sand bag	q=1m3	10.00	piece		163.00			1,630.00		C-035
	sand		10.00	m3		67.10			671.00		1.0m3×17piece=0.34m3
											C-030
	Operation for backhoe	0.8m3	0.23	day		4,230.33			967.14		10/D=10/62=0.161
											Breakdown No.103
	Incidental costs	7% of labor fee	1.00	unit					15.19		7%
		sub total							3,500.30		
		per 1bag							350.03		
	Total								350.03		

Breakdown No.240

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
240	well pump installation/removal			nos							
	φ2 inch										
	Forman		1.00	person		429.00			429.00		A-020
	Common labor		4.40	person		184.00			809.60		A-022
	Truck crene	5t	0.60	day							included in rental fee
	Incidental costs		1.00	unit							
	Total								1,238.60		

Breakdown No.241

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
241	dewatering by water pump			day							
	φ2 inch										
	per 10 unit										
	Skilled labor		3.40	m3		336.00			1,142.40		A-021
	Operation for submassible pump	φ50mm 0.48KVA	10.00	day		1,075.00			10,750.00		Breakdown No.171
	Operation for generator	35KVA	1.00	day		1,318.36			1,318.36		Breakdown No.168-1
	Incidental costs		1.00	unit					132.11		1%
		sub total							13,342.87		
		per 1day							1,334.29		
	Total								1,334.29		

Breakdown No.243

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
243	Gabion box			m							
	0.5m×1m×2m, Galvanized										
	per 10 m										
	Forman		2.20	person		429.00			943.80		A-020
	Skilled labor		2.60	person		336.00			873.60		A-021
	Common labor		7.00	person		429.00			3,003.00		A-022
	Operation for backhoe	0.8m3	4.80	h		551.63			2,647.82		Breakdown No.104
	Cobble		9.50	m3		449.00			4,265.50		C-032
	Gabion box	0.5m×1m×2m	5.00	box			5,100			25,500	
	geotextile	t=0.5mm	23.18	m2			621			14,397	JM-028
		sub total							11,733.72	39,897	
		per 1m							1,173.37	3,990	
	Total								1,173.37	3,990	

Breakdown No.244

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
244	Gabion box			m							
	1m×1m×2m, Galvanized										
	per 10 m										
	Forman		4.60	person		429.00			1,973.40		A-020
	Skilled labor		5.20	person		336.00			1,747.20		A-021
	Common labor		14.00	person		429.00			6,006.00		A-022
	Operation for backhoe	0.8m3	9.60	h		551.63			5,295.65		Breakdown No.104
	Cobble		19.00	m3		449.00			8,531.00		C-032
	Gabion box	1m×1m×2m	10.00	box			7,480			74,800	
	geotextile	t=0.5mm	23.18	m2			621			14,397	JM-028
		sub total							23,553.25	89,197	
		per 1m							2,355.33	8,920	
	Total								2,355.33	8,920	

Breakdown No.245

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
245	Gabion box			m							
	SUS 32A										
	per 1 m										
	Plumber		0.16	person		429.00			68.64		A-020
	Incidental costs		1.00	unit		6.86			6.86		10%
	Total								75.50		

Breakdown No.255

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
255	improvement for soft ground (treatment by mixing cement)			m3							
	Forman		0.40	person		429.00			171.60		A-020
	Common labor		0.50	person		184.00			92.00		A-022
	cement	Type- I	6.0	t		1,155.00			6,930.00		C-019/1000
	Operation for backhoe	0.8m3	1.22	day		4,230.33			5,166.08		100/D=100/116=0.86
		Total							12,359.68		
		per 1m3							123.60		
		Total							123.60		

Breakdown No.301

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
301	re-bar work (cutting, bending, placing)			t							
	D= less 16mm										
	foreman		2.10	person		429.00			900.90		A-020
	re-bar fixer		10.15	person		376.00			3,816.40		A-024
	Common labor		7.70	person		184.00			1,416.80		A-022
	re-bar	loss rate 4.5%	1.05	t		11,442.00			11,956.89		C-002
	Operation for truck crane	20t	0.11	day		4,044.51			459.46		Breakdown No.130
	Incidental costs	5% of labor fee	1.00	unit					306.71		5%
	Total								18,857.16		

Breakdown No.302

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
302	re-bar work (cutting, bending, placing)			t							
	D=D18～D25										
	foreman		1.75	person		429.00			750.75		A-020
	re-bar fixer		8.40	person		376.00			3,158.40		A-024
	Common labor		6.65	person		184.00			1,223.60		A-022
	re-bar	loss rate 4.5%	1.05	t		11,442.00			11,956.89		C-003
	Operation for truck crane	20t	0.11	day		4,044.51			459.46		Breakdown No.130
	Incidental costs	5% of labor fee	1.00	unit					256.64		5%
	Total								17,805.74		

Breakdown No.304

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
304	formwork (fabrication,,setting,removal)			m2							
	for reinforced/plain concrete										
	per 100m2										
	foreman		10.85	person		429.00			4,654.65		A-020
	carpenter		54.95	person		391.00			21,485.45		A-026
	Common labor		35.00	person		184.00			6,440.00		A-022
	Incidental costs		1.00	unit					7,493.42		23%
		sub total							40,073.52		
		per 1m2							400.74		
	Total								400.74		

Breakdown No.305

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
305	formwork (fabrication,,setting,removal)			m2							
	for circular structure										
	per 100m2										
	foreman		15.40	person		429.00			6,606.60		A-020
	carpenter		72.10	person		391.00			28,191.10		A-026
	Common labor		61.25	person		184.00			11,270.00		A-022
	Incidental costs		1.00	unit					6,449.48		14%
		sub total							52,517.18		
		per 1m2							525.17		
	Total								525.17		

Breakdown No.306

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
306	formwork (fabrication,,setting,removal)			m2							
	for main structure										
	per 100m2										
	foreman		10.85	person		429.00			4,654.65		A-020
	carpenter		54.95	person		391.00			21,485.45		A-026
	Common labor		35.00	person		184.00			6,440.00		A-022
	fomwork supervisor			person							
	Incidental costs		1.00	unit					7,493.42		23%
		sub total							40,073.52		
		per 1m2							400.74		
	Total								400.74		

Breakdown No.307

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
307	formwork (fabrication,,setting,removal)			m2							
	for small structure										
	per 100m2										
	foreman		12.25	person		429.00			5,255.25		A-020
	carpenter		47.25	person		391.00			18,474.75		A-026
	Common labor		38.85	person		184.00			7,148.40		A-022
	Incidental costs		1.00	unit					4,631.76		15%
		sub total							35,510.16		
		per 1m2							355.10		
	Total								355.10		

Breakdown No.308

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
308	formwork (fabrication,,setting,removal)			m2							
	for lean concrete										
	per 10m2										
	foreman		0.35	person		429.00			150.15		A-020
	carpenter		3.50	person		391.00			1,368.50		A-026
	Common labor		1.40	person		184.00			257.60		A-022
	Incidental costs		1.00	unit					319.73		18%
		sub total							2,095.98		
		per 1m2							209.60		
	Total								209.60		

Breakdown No.309

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
309	prefabricated scaffolding (instalation,removal)			m2							
	per 100m2										
	foreman		4.90	person		429.00			2,102.10		A-020
	Rigger		22.05	person		376.00			8,290.80		A-023
	Common labor		4.20	person		184.00			772.80		A-022
	operaion for rough terrain crane		1.40	day		2,500.00					included in rental fee
	Incidental costs	34% of the above	1.00	unit					3,796.34		34. %
									1,190.00		34% of rough terrain crane
		sub total							16,152.04		
		per 1m2							161.52		
	Total								161.52		

Breakdown No.310

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
310	pipe scaffolding (instalation,removal)			m2							
	per 100m2										
	foreman		6.65	person		429.00			2,852.85		A-020
	Rigger		18.90	person		376.00			7,106.40		A-023
	Common labor		18.55	person		184.00			3,413.20		A-022
	Operaion for rough terrain crane		0.80	day		2,500.00					included in rental fee
	Incidental costs	17% of the above	1.00	unit					2,273.32		17. %
									340.00		17% of rough terrain crane
		sub total							15,985.77		
		per 1m2							159.86		
	Total								159.86		

Breakdown No.314

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
314	wedged pipe supporting (instalation,removal)			m3							
	(t＜120cm)										
	per 100m3										
	foreman		4.90	person		429.00			2,102.10		A-020
	Form		4.55	person		391.00			1,779.05		A-026
	Rigger		11.55	person		391.00			4,516.05		A-023
	Common labor		11.55	person		184.00			2,125.20		A-022
	Operaion for rough terrain crane	20t, for Incidental costs	0.50	day		2,500.00					included in rental fee
	Incidental costs	33% of the above	1.00	unit					3,472.39		33. %
									412.50		33% of rough terrain crane
		sub total							14,407.29		
		per 1m3							144.07		
	Total								144.07		

Breakdown No.316

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
316	Batching plant assembly / demolition			unit							
	30m3/h										
	foreman		24.50	person		429.00			10,510.50		A-020
	Skilled labor		7.00	person		336.00			2,352.00		A-021
	carpenter		10.50	person		391.00			4,105.50		A-026
	Rigger		63.00	person		376.00			23,688.00		A-023
	electrician		10.50	person		392.00			4,116.00		A-031
	Common labor		66.50	person		184.00			12,236.00		A-022
	placing concrete	25N/mm2	6.80	m3		1,233.99			8,391.13		Breakdown No.338
	scaffolding	7m×φ9cm 57nos	2.54	m3		5,400.00			13,716.00		C-033
	scaffolding material	3.6m×22.7cm	3.12	m3		5,400.00			16,848.00		C-033
	wood material	4.0m 1.5-3.6cm	1.97	m3		5,400.00			10,638.00		C-033
	other material	5% of the material	1.00	unit					2,479.66		5%
	Operaion for rough terrain crane	25t	32.00	h							included in rental fee
	Total								109,080.79		

Breakdown No.317

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
317	cement silo assembly/demolition			unit							
	50t										
	Rigger		49.00	person		391.00			19,159.00		A26
	Common labor		122.50	person		184.00			22,540.00		A22
	Operaion for rough terrain crane	25t	32.00	h							included in rental fee
	placing concrete	25N/mm2	5.00	m3		1,233.99			6,169.95		Breakdown No.338
	form work		5.00	m2		400.74			2,003.70		Breakdown No.306
	re-bar work	80kg/m3	0.40	t		18,857.16			7,542.86		Breakdown No.301
	curing		5.00	m3		30.22			151.10		Breakdown No.342
	Total								57,566.61		

Breakdown No.318

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
318	Stock yard for concrete aggregate			unit							
	installation / demolition (400m2)										
	carpenter	N = 0.6×40 = 24	48.00	person		391.00			18,768.00		A-026
	Common labor	N = 1.2×40 = 48	96.00	person		184.00			17,664.00		A-022
	wood log	(φ125, L=2.0m) × 64nos @1.5m	1.57	m3		5,400.00			8,478.00		C-033
	wood material	1.5m×90m, t=25mm	3.38	m3		5,400.00			18,225.00		C-033
	other material		1.00	unit							
	placing concrete	18N/mm2	14.00	m3		1,109.76			15,536.64		for Apron, base of pole
											Breakdown No.339
	form work		12.60	m2		209.60			2,640.96		Breakdown No.308
	re-bar work			t							
	curing		14.00	m3		12.92			180.88		Breakdown No.341
	Total								81,493.48		

Breakdown No.320

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
320	mixing concrete			m3							
	25N/mm2 (OPC)										
	cement	loss rate 1%	0.36	t		1,155.00			419.96		C-019
	coarse aggregate	loss rate 5%	0.68	m3		353.00			238.70		C-029
	fine aggregate	loss rate 10%	0.59	m3		262.00			153.61		C-028
	additive	reduce water	3.60	kg		23.00			82.80		C-025 Sika 2004
	water		0.18	m3		12.00			2.16		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		747.91			23.93		Breakdown No.149
	Operation for wheel loader	2.1m3	0.03	h		424.50			13.58		Breakdown No.113
	Total								934.74		

Breakdown No.320-1

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
320-1	mixing concrete (night time operating)			m3							
	25N/mm2 (OPC)										
	cement	loss rate 1%	0.36	t		1,155.00			419.96		C-019
	coarse aggregate	loss rate 5%	0.68	m3		353.00			238.70		C-029
	fine aggregate	loss rate 10%	0.59	m3		262.00			153.61		C-028
	additive	reduce water	3.60	kg		23.00			82.80		C-025
	water		0.18	m3		12.00			2.16		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		903.48			28.91		Breakdown No.149-1
	Operation for wheel loader	2.1m3	0.03	h		444.74			14.23		Breakdown No.113-1
	Total								940.37		

Breakdown No.321

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
321	mixing concrete			m3							
	25N/mm2 (SRC)										
	cement	loss rate 1%	0.36	t		1,233.00			448.32		C-018
	coarse aggregate	loss rate 5%	0.68	m3		353.00			238.70		C-029
	fine aggregate	loss rate 10%	0.59	m3		262.00			153.61		C-028
	additive	reduce water	3.60	kg		23.00			82.80		C-025
	water		0.18	m3		12.00			2.16		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		747.91			23.93		Breakdown No.149
	Operation for wheel loader	2.1m3	0.03	h		424.50			13.58		Breakdown No.113
	Total								963.10		

Breakdown No.321-1

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
321-1	mixing concrete (night time operating)			m3							
	25N/mm2 (SRC)										
	cement	loss rate 1%	0.36	t		1,233.00			448.32		C-018
	coarse aggregate	loss rate 5%	0.68	m3		353.00			238.70		C-029
	fine aggregate	loss rate 10%	0.59	m3		262.00			153.61		C-028
	additive	reduce water	3.60	kg		23.00			82.80		C-025
	water		0.18	m3		12.00			2.16		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		903.48			28.91		Breakdown No.149-1
	Operation for wheel loader	2.1m3	0.03	h		444.74			14.23		Breakdown No.113-1
	Total								968.73		

Breakdown No.322

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
322	mixing concrete			m3							
	18N/mm2 (OPC)										
	cement	loss rate 1%	0.33	t		1,155.00			381.46		C-019
	coarse aggregate	loss rate 5%	0.69	m3		353.00			245.00		C-029
	fine aggregate	loss rate 10%	0.59	m3		262.00			153.61		C-028
	additive	reduce water	3.20	kg		23.00			73.60		C-025
	water		0.18	m3		12.00			2.16		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		747.91			23.93		Breakdown No.149
	Operation for wheel loader	2.1m3	0.03	h		424.50			13.58		Breakdown No.113
	Total								893.34		

Breakdown No.323

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
323	mixing concrete			m3							
	12N/mm2 (OPC)										
	cement	loss rate 1%	0.25	t		1,155.00			291.64		C-019
	coarse aggregate	loss rate 5%	0.87	m3		353.00			305.42		C-029
	fine aggregate	loss rate 10%	0.63	m3		262.00			164.56		C-028
	additive	reduce water	0.60	kg		23.00			13.80		C-025
	water		0.14	m3		12.00			1.68		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		747.91			23.93		Breakdown No.149
	Operation for wheel loader	2.1m3	0.03	h		424.50			13.58		Breakdown No.113
	Total								814.61		

Breakdown No.324

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
324	mixing concrete			m3							
	25N/mm2 (OPC, underwater concrete)										
	cement	loss rate 1%	0.32	t		1,233.00			398.51		C-018
	coarse aggregate	loss rate 5%	0.87	m3		353.00			308.01		C-029
	fine aggregate	loss rate 10%	0.58	m3		262.00			151.31		C-028
	antiwashout admixture		1.80	kg							C-024
	water		0.18	m3		12.00			2.16		I-003
	incidental cost		1.00	unit							
	Operation for batching plant	30m3/h	0.03	h		747.91			23.93		Breakdown No.149
	Operation for wheel loader	2.1m3	0.03	h		424.50			13.58		Breakdown No.113
	Total								897.50		

Breakdown No.325

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
325	transpotation for concrete by truck mixer			m3							
	L=0.2km, one way										
	Operation for truck mixer	10t	0.14	h							Breakdown No. 151
	Qa=60*qa*Ea/Cma (m3/h)										
	=60*4.4*0.9/32=7.425(m3/h)										
	1/7.425=0.135										
	qa=4.4m3										
	Ea=0.9										
	Cma=Cm1+Cm2 (min) =32 (min)										
	Cm1= 20 (min)										
	Cm2= 60*(L/V+t/60)										
	= 60*(0.4/12+10/60=12 (min)										
	Total										

included rental fee

Breakdown No.330

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
330	placing concrete (25N/mm2, OPC)			m3							
	reinforced concrete (over 30m3)										
	per 10m3										
	foreman		0.36	person		429.00			154.44		A-020
	Skilled labor		1.00	person		336.00			336.00		A-021
	Common labor		1.30	person		184.00			239.20		A-022
	Operation for crawler crane	50t	0.20	day		14,725.06			2,945.01		Breakdown No.137
	Incidental costs	2% of the above	1.00	unit					73.49		2%
	mixing concrete	25N/mm2 (OPC)	10.50	m3		934.74			9,814.77		Breakdown No.320
		sub total							13,562.91		
		per 1m3							1,356.29		
	Total								1,356.29		

Breakdown No.332

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
332	placing concrete (25N/mm2, SRC)			m3							
	reinforced concrete (over 30m3)										
	per 10m3										
	foreman		0.36	person		429.00			154.44		A-020
	Skilled labor		1.00	person		336.00			336.00		A-021
	Common labor		1.30	person		184.00			239.20		A-022
	Operation for crawler crane	50t	0.20	day		14,725.06			2,945.01		Breakdown No.137
	Incidental costs	2% of the above	1.00	unit					73.49		2%
	mixing concrete	25N/mm2 (SRC)	10.50	m3		963.10			10,112.55		Breakdown No.321
		sub total							13,860.69		
		per 1m3							1,386.07		
	Total								1,386.07		

Breakdown No.332-1

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
332-1	placing concrete (25N/mm2, SRC) (night time operating)			m3							
	reinforced concrete (over 30m3)										rate of night work
	per 10m3										1.7
	foreman		0.36	person		729.30			262.55		A-020×1.22
	Skilled labor		1.00	person		571.20			571.20		A-021×1.22
	Common labor		1.30	person		312.80			406.64		A-022×1.22
	Operation for crawler crane	50t (night time operating)	0.20	day		14,820.76			2,964.15		Breakdown No.137-1
	Incidental costs	2% of the above	1.00	unit					84.09		2%
	mixing concrete	25N/mm2 (SRC) (night time operating)	10.50	m3		968.73			10,171.67		Breakdown No.321-1
		sub total							14,460.30		
		per 1m3							1,446.03		
	Total								1,446.03		

Breakdown No.333

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
333	placing concrete (18N/mm2, OPC)			m3							
	plain concrete (less 30m3)										
	per 10m3										
	foreman		0.62	person		429.00			265.98		A-020
	Skilled labor		1.24	person		336.00			416.64		A-021
	Common labor		1.74	person		184.00			320.16		A-022
	Operation for crawler crane	50t	0.28	day		14,725.06			4,123.02		Breakdown No.137
	Incidental costs	3% of the above	1.00	unit					153.77		3%
	mixing concrete	18N/mm2 (OPC)	10.65	m3		893.34			9,514.07		Breakdown No.322
		sub total							14,793.64		
		per 1m3							1,479.36		
	Total								1,479.36		

Breakdown No.334

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
334	placing concrete (18N/mm2, OPC)			m3							
	plain concrete (over 30m3)										
	per 10m3										
	foreman		0.36	person		429.00			154.44		A-020
	Skilled labor		1.00	person		336.00			336.00		A-021
	Common labor		1.30	person		184.00			239.20		A-022
	Operation for crawler crane	50t	0.20	day		14,725.06			2,945.01		Breakdown No.137
	Incidental costs	2% of the above	1.00	unit					73.49		2%
	mixing concrete	18N/mm2 (OPC)	10.65	m3		893.34			9,514.07		Breakdown No.322
		sub total							13,262.21		
		per 1m3							1,326.22		
	Total								1,326.22		

Breakdown No.336

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
336	placing concrete (25N/mm2, OPC)			m3							
	reinforced concrete (small size structure)										
	per 10m3										
	foreman		1.80	person		429.00			772.20		A-020
	Skilled labor		2.04	person		336.00			685.44		A-021
	Common labor		6.50	person		184.00			1,196.00		A-022
	Operation for rough terrain crane	25t	0.56	day							included A3-2
	Incidental costs	4% of the above	1.00	unit					106.15		4%
	mixing concrete	25N/mm2 (OPC)	10.50	m3		934.74			9,814.77		Breakdown No.320
		sub total							12,574.56		
		per 1m3							1,257.46		
	Total								1,257.46		

Breakdown No.338

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
338	placing concrete (25N/mm2, OPC) by manpower			m3							
	reinforced concrete (small structure)										
	per 10m3										
	foreman		1.82	person		429.00			780.78		A-020
	Skilled labor		2.00	person		336.00			672.00		A-021
	Common labor		5.30	person		184.00			975.20		A-022
	Operation for crawler crane	50t		day		14,725.06					Breakdown No.137
	Incidental costs	4% of the above	1.00	unit					97.12		4%
	concrete	25N/mm2 (OPC)	10.50	m3		934.74			9,814.77		Breakdown No.320
		sub total							12,339.87		
		per 1m3							1,233.99		
	Total								1,233.99		

Breakdown No.339

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
339	placing concrete (18N/mm2) by manpower			m3							
	plain concrete (small structure)										
	per 10m3										
	foreman		1.14	person		429.00			489.06		A-020
	Skilled labor		1.58	person		336.00			530.88		A-021
	Common labor		2.50	person		184.00			460.00		A-022
	Operation for crawler crane	50t		day		14,725.06					Breakdown No.137
	Incidental costs	7% of the above	1.00	unit					103.60		7%
	concrete	18N/mm2 (OPC)	10.65	m3		893.34			9,514.07		Breakdown No.322
		sub total							11,097.61		
		per 1m3							1,109.76		
	Total								1,109.76		

Breakdown No.340

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
340	curing concrete			m3							
	reinforced concrete										
	per 10m3										
	Common labor		0.32	person		184.00			58.88		A-022
	Incidental costs	33% of the above	1.00	unit					19.43		33%
		sub total							78.31		
		per 1m3							7.83		
	Total								7.83		

Breakdown No.341

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
341	curing concrete			m3							
	plain concrete										
	per 10m3										
	Common labor		0.60	person		184.00			110.40		A-022
	Incidental costs	17% of the above	1.00	unit					18.77		17%
		sub total							129.17		
		per 1m3							12.92		
	Total								12.92		

Breakdown No.342

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
342	curing concrete			m3							
	reinforced concrete (small size structure)										
	per 10m3										
	Common labor		1.38	person		184.00			253.92		A-022
	Incidental costs	19% of the above	1.00	unit					48.24		19%
		sub total							302.16		
		per 1m3							30.22		
	Total								30.22		

Breakdown No.343

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
343	installation for water stop			m							
	PVC, w=230mm										
	per 10m										
	carpenter		0.96	person		391.00			375.36		A-026
	joint filler	W=230, t=6	10.00	m			2,214			22,140	JM-002
	Incidental costs		1.00	unit							
		sub total							375.36	22,140	
		per 1m							37.54	2,214	
	Total								37.54	2,214	

Breakdown No.344

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
344	installation for water stop			m							
	water-swelling										
	per 10m										
	foreman		0.26	person		429.00			111.54		A-020
	Common labor		0.90	person		184.00			165.60		A-022
	joint filler	water expansible material	10.40	m			1,899			19,750	JM-002
	Incidental costs		1.00	unit							
		sub total							165.60	19,750	
		per 1m							16.56	1,975	
	Total								16.56	1,975	

Breakdown No.345

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
345	installation for joint filler			m2							
	joint filler (bitumen), slip bar										
	per 100m2										
	Form		8.20	person		391.00			3,206.20		A-026
	joint filler	t=20mm, bitumen	109.00	m2		270.00			29,430.00		C-099
	slip bar	φ28, L=700	33.33	本		165.00			5,500.00		C-135
	slip bar cap		33.33	本		67.00			2,233.33		C-136
	Incidental costs		1.00	unit							
		Total							40,369.53		
		per 1m2							403.70		
	Total								403.70		

Breakdown No.347

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
347	anticorrosion painting			m2							
	bitumen painting										
	painter		0.28	person		370.00			104.90		A-029
	bitumen		0.07	kg		18.00			1.24		C-051
	Total								106.14		

Breakdown No.348

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
348	steel step			nos							
	W=300mm										
	Common labor		0.42	person		184.00			77.28		A-022
	steel step	W=300mm	1.00	nos		293.37			293.37		JM-009
	Total								370.65		

Breakdown No.350

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
350	installation for joint bar			m							
	D22										
	per 1nos										
	carpenter		0.18	person		391.00			71.94		A-026
	Incidental costs	16% of labor fee	1.00	unit					11.51		16%
	Total								83.45		

Breakdown No.351

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
351	installation for joint filler			m2							
	expansion joint										
	per 10m2										
	Forman		0.10	person		429.00			42.90		A-020
	Common labor		0.58	person		184.00			106.72		A-022
nm	expansion joint	elastic filler, t=20mm	1.12	m2		270.00			302.40		C-099
	Incidental costs		1.00	unit							
		Total							452.02		
		per 1m2							45.20		
	Total								45.20		

Breakdown No.352

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
352	foundation for steel stairs			nos							
	excavation		10.20	m3		19.82			202.16		Breakdown No.201
	finishing for ground foundation	by manpower	8.70	m2		28.06			244.12		Breakdown No.223
	backfill		6.60	m3		88.49			584.03		Breakdown No.210
	loading		3.60	m3		19.22			69.19		Breakdown No.205
	excavated soil disposal	distance 1km	3.60	m3		18.47			66.49		Breakdown No.217
	gravel foundation	t=100	0.40	m2		99.31			39.72		Breakdown No.224
	form for lean concrete	t=10cm	7.30	m2		209.60			1,530.08		Breakdown No.308
	placing lean concrete	18N/mm2 by manpower	0.40	m3		1,109.76			443.90		Breakdown No.339
	form		6.90	m2		400.74			2,765.11		Breakdown No.306
	re-bar	less D16	0.29	m2		17,805.74			5,163.66		Breakdown No.302
	placing concrete	25N/mm2 by manpower	2.90	m3		1,233.99			3,578.57		Breakdown No.338
	curing concrete		2.90	m3		30.22			87.64		Breakdown No.342
	Total								14,774.67		

Breakdown No.401

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
401	stone masonry with mortar (slope inclination less 1:1)			m2							
	cobble stone, t=35cm	t=35cm									
	per 10m2										
	Forman		1.40	person		429.00			600.60		A-020
	masonry		5.25	person		370.00			1,942.50		A-028
	Common labor		12.60	person		184.00			2,318.40		A-022
	Incidental costs		1.00	unit							
	cobble stone		3.50	m3		449.00			1,571.50		130 nos of stone
											C-032
	foundation concrete	18N/mm2 (OPC)	1.70	m3		1,109.76			1,886.59		Breakdown No.339
	pvc pipe	50mm L=0.5m	5.00	本		19.50			97.50		C-082/2
	cobble stone										
	V=0.35m×10m2＝3.5m3										
		sub total							8,417.09		
		per 1m2							841.71		
	Total								841.71		

3 Breakdown No.405

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
405	stone rip rap			m3							
	r≧24m										
	per 100m3										
	Forman		0.42	person		429.00			180.18		A-020
	Skilled labor		0.57	person		336.00			191.52		A-021
	Common labor		0.94	person		184.00			172.96		A-022
	Operation for backhoe	0.8m3	8.80	h		551.63			4,856.55		Breakdown No.104
	Operaion for crawler crane	50t	1.15	day		14,725.06			16,936.76		Breakdown No.137
	Incidental costs	3% of labor fee	1.00	unit					16.34		3.0%
	cobble stone		121.00	m3		449.00			54,329.00		K=0.21
											C-032
		sub total							76,683.31		
		per 1m3							766.83		
	Total								766.83		

Breakdown No.407

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
407	stone rip rap			m3							
	r＜9m										
	per 100m3										
	Forman		0.50	person		429.00			214.50		A-020
	Skilled labor			person		336.00					A-021
	Common labor		0.69	person		184.00			126.96		A-022
	Operation for backhoe	0.8m3	10.79	h		551.63			5,953.19		Breakdown No.104
	Operaion for rough terrain crane	25t		day							
	Incidental costs		1.00	unit							
	cobble stone		121.00	m3		449.00			54,329.00		K=0.21
											C-032
		sub total							60,623.65		
		per 1m3							606.24		
	Total								606.24		

Breakdown No.408 建工 300

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
408	grading for stone rip rap			m2							
	per 100m2										
	Forman		0.71	person		429.00			304.59		A-020
	Common labor		1.80	person		184.00			331.20		A-022
	Operation for backhoe	0.8m3	12.78	h		551.63			7,049.83		Breakdown No.104
	Incidental costs		1.00	unit							
		sub total							7,685.62		
		per 1m2							76.86		
	Total								76.86		

Breakdown No.409

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
409	missing number										
		Total									
		1 Unit									
		Total									

Breakdown No.411

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
411	installation for geotextile			m2							
	per 10m2										
	Common labor		0.21	person		184.00			38.64		3.3*10/D = 3.3*10/38 = 0.868
											A-022
	geotextile	t=0.5mm, Nylon,polyes	11.20	m2		38.00			425.60		K=0.12
											C-137
		sub total							464.24		
		per 1m2							46.42		
	Total								46.42		

Breakdown No.452

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
452	installation and removal for fence for protect water pollution			m							
	(number of anchor@4.0m)										
	per 20m										
	Forman		0.81	person		429.00			345.35		2*6/D = 2*6/52 = 0.23
											A-020
	Common labor		0.81	person		184.00			148.12		2*6/D = 2*6/52 = 0.23
											A-022
	Operaion for rough terrain crane	25t	0.23	day							2*6/D = 2*6/52 = 0.23
											counted separately
	fence for protect water pollution	30cm×40cm	20.00	m		1,000.00			20,000.00		C-038
	big size sand bag	filling sand	5.00	bag		350.03			1,750.15		Breakdown No.237
		sub total							22,243.62		
		per 1m							1,112.18		
	Total								1,112.18		

Breakdown No.502

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
502	base course			m2							
	roadway, 1 layer										
	per 100m2										
	Common labor		0.24	person		184.00			44.16		A-022
	Operation for motorgrader	3.1m	0.13	day		3,212.67			410.58		100/D = 100/1100 = 0.09
											Breakdown No.114
	Operation for road roller	10～12t	0.13	day		2,762.21			353.01		100/D = 100/1100 = 0.09
											Breakdown No.158
	Operation for tire roller	8～20t	0.13	day		3,115.09			398.11		100/D = 100/1100 = 0.09
											Breakdown No.154
	Incidental costs	worker+operation	1.00	unit					108.53		9%
	base course material	t=20cm	25.40	m3		471.00			11,963.40		K=0.27
											C-031
		sub total							13,277.79		
		per 1m2							132.78		
	Total								132.78		

Breakdown No.512

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
512	hand rail			m							
	Galvanized steel Handrail										
	Forman		0.06	person		429.00			27.03		1/57*1=0.018
											A-020
	Skilled worker		0.19	person		336.00			62.33		1/57*3=0.053
											A-021
	Common labor		0.63	person		184.00			115.92		1/57*1=0.018
											A-022
	hand rail materal		1.00	m		1,190.00			1,190.00		C-061
	Incidental costs		1.00	unit							
	Total								1,395.28		

Breakdown No.514

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
514	guard pipe			m							
	installation for guard pipe										
	Common labor		0.55	person		184.00			101.11		1/D*6 = 1/38*6=0.157
											A-022
	Incidental costs	1% of labor fee	1.00	unit					1.01		1%
	guard pipe material	Gp-Bp-2B	1.00	m		1,110.00			1,110.00		C-065
	Total								1,212.12		

Breakdown No.515

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
515	installation for grating			m2							
	per 100m2										
	Forman		10.50	person		429.00			4,504.50		1*T = 1*3.00 = 3.00
											A-020
	Skilled worker		21.00	person		336.00			7,056.00		2*T = 1*3.00 = 6.00
											A-021
	Welder		10.50	person		415.00			4,357.50		1*T = 1*3.00 = 3.00
											A-030
	Common labor		31.50	person		184.00			5,796.00		3*T = 1*3.00 = 9.00
											A-022
	Incidental costs	7% of labor fee	1.00	unit					1,519.98		7%
	operation for truck crane		3.00	day							counted separately
	grating material	IB, 44×5×3	100.00	m2			18,090			1,809,000	JM-023
		sub total							23,233.98	1,809,000	
		per 1m2							232.34	18,090	
	Total								232.34	18,090	

Breakdown No.516

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
516	installation for expansion joint			m							
	displacement ⊿=20mm										
	per 100m										
	Forman		10.50	person		429.00			4,504.50		1*T = 1*3.00 = 3.00
											A-020
	skilled worker		21.00	person		336.00			7,056.00		2*T = 1*3.00 = 6.00
											A-021
	Welder		10.50	person		415.00			4,357.50		1*T = 1*3.00 = 3.00
											A-030
	Common labor		31.50	person		184.00			5,796.00		3*T = 1*3.00 = 9.00
											A-022
	Incidental costs	7% of labor fee	1.00	unit					1,519.98		7%
	operation for truck crane		3.00	day							counted separately
	expansion joint		100.00	m			35,190			3,519,000	JM-022
		sub total							23,233.98	3,519,000	
		per 1m							232.34	35,190	
		Total							232.34	35,190	

Breakdown No.517

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
517	installation for expansion joint			m							
	displacement⊿=35mm										
	per100m										
	Forman		10.50	person		429.00			4,504.50		1*T = 1*3.00 = 3.00
											A-020
	Skilled worker		21.00	person		336.00			7,056.00		2*T = 1*3.00 = 6.00
											A-021
	Welder		10.50	person		415.00			4,357.50		1*T = 1*3.00 = 3.00
											A-030
	Common labor		31.50	person		184.00			5,796.00		3*T = 1*3.00 = 9.00
											A-022
	Incidental costs	7% of labor fee	1.00	unit					1,519.98		7%
	operation for truck crane		3.00	day							counted separately
	expansion joint		100.00	m			55,800			5,580,000	JM-020
		sub total							23,233.98	5,580,000	
		per 1m							232.34	55,800	
	Total								232.34	55,800	

Breakdown No.518

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
518	installation for steel stairs			nos							3.1t / nos
	W×H(Length) : 1.2m×8.6m (18.1m)										
	Rigger		5.74	person		376.00			2,158.24		0.53*3.1=1.64
											A-023
	Skilled labor		0.74	person		336.00			246.96		0.067*3.1=0.21
											A-021
	Incidental costs	20% of labor fee	1.00	unit					481.04		20%
	operation for truck crane	35t	1.00	day		7,173.40			7,173.40		Breakdown No.128
	pipe scaffolding	over 4m	154.60	掛m2		159.86			24,714.36		Breakdown No.310
	material fee of steel stairs		3.10	t		30,700.00			95,170.00		C-062
	Total								129,944.00		

Breakdown No.604

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
604	H-beam driving			nos							
	H400, driving length L≦12m (Nmax＜50)										N＝14
	per 10nos										
	Forman		1.01	person		429.00			432.52		10/N*1=0.71
											A-020
	Rigger		2.03	person		376.00			763.51		10/N*2=1.43
											A-023
	Common labor		1.01	person		184.00			185.51		10/N*1=0.71
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	1.01	day		15,564.67			15,692.30		10/N*1=0.71
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					3,756.24		22%
											Breakdown No. 160
		sub total							20,830.08		
		per 1nos							2,083.01		
	Total								2,083.01		

Breakdown No.605

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
605	H-beam driving			nos							
	H400, driving length L≦9m (Nmax＜50)										N＝18
	per 10nos										
	Forman		0.80	person		429.00			341.14		10/N*1=0.56
											A-020
	Rigger		1.58	person		376.00			592.65		10/N*2=1.11
											A-023
	Common labor		0.80	person		184.00			146.32		10/N*1=0.56
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.80	day		15,564.67			12,377.03		10/N*1=0.56
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					2,960.57		22%
											Breakdown No. 160
		sub total							16,417.71		
		per 1nos							1,641.77		
	Total								1,641.77		

Breakdown No.606

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
606	H-beam driving			nos							
	H350, driving length L≦12m (Nmax＜50)										N＝17
	per 10nos										
	Forman		0.84	person		429.00			359.42		10/N*1=0.59
											A-020
	Rigger		1.68	person		376.00			630.03		10/N*2=1.18
											A-023
	Common labor		0.84	person		184.00			154.16		10/N*1=0.59
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.84	day		15,564.67			13,040.08		10/N*1=0.59
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					3,120.41		22%
											Breakdown No. 160
		sub total							17,304.10		
		per 1nos							1,730.41		
	Total								1,730.41		

Breakdown No.607

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
607	H-beam driving			nos							
	H350, driving length L≦9m (Nmax＜50)										N＝21
	per 10nos										
	Forman		0.68	person		429.00			292.41		10/N*1=0.48
											A-020
	Rigger		1.35	person		376.00			507.22		10/N*2=0.95
											A-023
	Common labor		0.68	person		184.00			125.41		10/N*1=0.48
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.68	day		15,564.67			10,608.88		10/N*1=0.48
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					2,537.46		22%
											Breakdown No. 160
		sub total							14,071.38		
		per 1nos							1,407.14		
	Total								1,407.14		

Breakdown No.608

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
608	H-beam driving			nos							
	H300, driving length L≦6m (Nmax＜50)										N＝33
	per 10nos										
	Forman		0.43	person		429.00			182.75		10/N*1=0.3
											A-020
	Rigger		0.87	person		376.00			325.69		10/N*2=0.61
											A-023
	Common labor		0.43	person		184.00			78.38		10/N*1=0.3
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.43	day		15,564.67			6,630.55		10/N*1=0.3
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,587.82		22%
											Breakdown No. 160
		sub total							8,805.19		
		per 1nos							880.52		
	Total								880.52		

Breakdown No.609

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
609	H-beam driving			nos							
	H250, driving length L≦4m (Nmax＜50)										N＝44
	per 10nos										
	Forman		0.33	person		429.00			140.11		10/N*1=0.23
											A-020
	Rigger		0.64	person		376.00			240.26		10/N*2=0.45
											A-023
	Common labor		0.33	person		184.00			60.09		10/N*1=0.23
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.33	day		15,564.67			5,083.42		10/N*1=0.23
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,215.25		22%
											Breakdown No. 160
		sub total							6,739.13		
		per 1nos							673.91		
	Total								673.91		

Breakdown No.610

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
610	H-beam driving			nos							
	H200 or less, driving length L≦4m (Nmax＜50)										N＝48
	per 10nos										
	Forman		0.30	person		429.00			127.93		10/N*1=0.21
											A-020
	Rigger		0.60	person		376.00			224.25		10/N*2=0.42
											A-023
	Common labor		0.30	person		184.00			54.87		10/N*1=0.21
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.30	day		15,564.67			4,641.38		10/N*1=0.21
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,110.65		22%
											Breakdown No. 160
		sub total							6,159.08		
		per 1nos							615.91		
	Total								615.91		

Breakdown No.611

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
611	removal for sheet pile / H-beam			sheet (piece)							
	removing length L≦15m (Nmax＜50)										N＝43
	per 10sheet										
	Forman		0.33	person		429.00			140.11		10/N*1=0.23
											A-020
	Rigger		0.67	person		376.00			250.94		10/N*2=0.47
											A-023
	Common labor		0.33	person		184.00			60.09		10/N*1=0.23
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.33	day		15,564.67			5,083.42		10/N*1=0.23
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,051.57		19%
		sub total							6,586.13		
		per 1sheet (piece)							658.61		
	Total								658.61		

Breakdown No.612

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
612	Removing sheet pile / H-beam			sheet (piece)							
	removing length L≦12m (Nmax＜50)										N＝50
	per 10sheet										
	Forman		0.28	person		429.00			121.84		10/N*1=0.2
											A-020
	Rigger		0.57	person		376.00			213.57		10/N*2=0.4
											A-023
	Common labor		0.28	person		184.00			52.26		10/N*1=0.2
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.28	day		15,564.67			4,420.37		10/N*1=0.2
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					913.53		19%
		sub total							5,721.57		
		per 1sheet (piece)							572.16		
	Total								572.16		

Breakdown No.613

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
613	Removing sheet pile / H-beam			sheet (piece)							
	removing length L≦9m (Nmax＜50)										N＝58
	per 10sheet										
	Forman		0.24	person		429.00			103.56		10/N*1=0.17
											A-020
	Rigger		0.48	person		376.00			181.53		10/N*2=0.34
											A-023
	Common labor		0.24	person		184.00			44.42		10/N*1=0.17
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.24	day		15,564.67			3,757.31		10/N*1=0.17
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					776.50		19%
		sub total							4,863.32		
		per 1sheet (piece)							486.33		
	Total								486.33		

Breakdown No.614

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
614	Removing sheet pile / H-beam			sheet (piece)							
	removing length L≦6m (Nmax＜50)										N＝68
	per 10sheet										
	Forman		0.21	person		429.00			91.38		10/N*1=0.15
											A-020
	Rigger		0.41	person		376.00			154.84		10/N*2=0.29
											A-023
	Common labor		0.21	person		184.00			39.19		10/N*1=0.15
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.21	day		15,564.67			3,315.27		10/N*1=0.15
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					684.13		19%
		sub total							4,284.81		
		per 1sheet (piece)							428.48		
	Total								428.48		

Breakdown No.615

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
615	Removing sheet pile / H-beam			sheet (piece)							
	removing length L≦4m (Nmax＜50)										N＝78
	per 10sheet										
	Forman		0.18	person		429.00			79.19		10/N*1=0.13
											A-020
	Rigger		0.37	person		376.00			138.82		10/N*2=0.26
											A-023
	Common labor		0.18	person		184.00			33.97		10/N*1=0.13
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.18	day		15,564.67			2,873.24		10/N*1=0.13
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					593.79		19%
		sub total							3,719.01		
		per 1sheet (piece)							371.90		
	Total								371.90		

Breakdown No.616

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
616	Installation for tie-rod and waling			t							
	(without material fee)										
	per 10t										
	Forman		17.15	person		429.00			7,357.35		A-020
	Rigger		34.65	person		376.00			13,028.40		A-023
	Welder		17.15	person		415.00			7,117.25		A-030
	Common labor		17.15	person		184.00			3,155.60		A-022
	Operaion for rough terrain crane	25t	4.90	day							counted separately
	Incidental costs	8% of labor fee	1.00	unit					2,452.69		8%
	Material for tie-rod and waling										counted separately
		sub total							33,111.29		
		per 1t							3,311.13		
	Total								3,311.13		

Breakdown No.618

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
618	Installation for deck plate			m2							
	deck plate										
	per 100m2										
	Forman		3.15	person		429.00			1,351.35		A-020
	Rigger		10.15	person		336.00			3,410.40		A-021
	Common labor		3.85	person		184.00			708.40		A-022
	Operaion for crawler crane	50t	1.00	day		14,725.06			14,725.06		Breakdown No.137
	Incidental costs		1.00	unit							
		sub total							20,195.21		
		per 1m2							201.95		
	Total								201.95		

Breakdown No.619

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
619	removal for deck plate			m2							
	deck plate										
	per 100m2										
	Forman		1.75	person		429.00			750.75		A-020
	Rigger		5.25	person		336.00			1,764.00		A-021
	Common labor		2.45	person		184.00			450.80		A-022
	Operaion for crawler crane	50t	0.50	day		14,725.06			7,362.53		Breakdown No.137
	Incidental costs		1.00	unit							
		sub total							10,328.08		
		per 1m2							103.28		
	Total								103.28		

Breakdown No.620

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
620	Installation for superstructure			t							
	big size										
	per 10t										
	Forman for bridge		4.20	person		429.00			1,801.80		A-020
	Skilled labor for bridge		11.90	person		336.00			3,998.40		A-021
	Welder			person		415.00					A-030
	Common labor		7.00	person		184.00			1,288.00		A-022
	Operaion for crawler crane	50t	1.30	day		14,725.06			19,142.58		Breakdown No.137
	Incidental costs	16% of labor fee	1.00	unit					1,134.11		16%
		sub total							27,364.89		
		per 1t							2,736.49		
	Total								2,736.49		

Breakdown No.621

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
621	removal for superstructure			t							
	big size										
	per 10t										
	Forman for bridge		2.80	person		429.00			1,201.20		A-020
	Skilled labor for bridge		5.60	person		336.00			1,881.60		A-021
	Welder		1.75	person		415.00			726.25		A-030
	Common labor		4.90	person		184.00			901.60		A-022
	Operaion for crawler crane	50t	0.70	day		14,725.06			10,307.54		Breakdown No.137
	Incidental costs	2% of labor fee	1.00	unit					94.21		2%
		sub total							15,112.40		
		per 1t							1,511.24		
	Total								1,511.24		

Breakdown No.622

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
622	Installation for bridge railing			m							
	bridge railing										
	per 100m										
	Forman		2.00	person		429.00			858.00		A-020
	Common labor		7.60	person		184.00			1,398.40		A-022
	Welder			person		415.00					A-030
	Operaion for crawler crane	50t		day		14,725.06					Breakdown No.137
	Incidental costs		1.00	unit							
		sub total							2,256.40		
		per 1m							22.56		
	Total								22.56		

Breakdown No.623

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
623	removal for bridge railing			m							
	bridge railing										
	per 100m										
	Forman		1.20	person		429.00			514.80		A-020
	Common labor		4.20	person		184.00			772.80		A-022
	Welder			person		415.00					A-030
	Operaion for crawler crane	50t		day		14,725.06					Breakdown No.137
	Incidental costs		1.00	unit							
		sub total							1,287.60		
		per 1m							12.88		
	Total								12.88		

Breakdown No.624

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
624	Rular work for piling			piece							
	H-300 driving, L≦4m										N=35.
	per 10piece										
	Forman		0.40	person		429.00			170.57		10/N*1=10/35*1=0.28
											A-020
	Rigger		0.81	person		376.00			304.33		10/N*2=10/356*2=0.57
											A-023
	Skilled labor		0.40	person		336.00			133.59		10/N*1=10/35*1=0.28
											A-021
	Common labor		0.40	person		184.00			73.16		10/N*1=10/35*1=0.28
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.40	day		15,564.67			6,188.51		10/N*1=10/35*1=0.28
											Breakdown No. 160
	Operation for waterjet	14.7MPa, 325l/min		day		213.15	54,456.00				10/N*2=10/356*2=0.57
											Breakdown No.161
	Incidental costs	20% of the above	1.00	unit					1,374.03		20%
		sub total							8,244.19		
		per 1piece							824.42		
	Total								824.42		

Breakdown No.625

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
625	Rular work for piling			piece							
	H-300, removal, L≦4m										N=35.
	per 10piece										
	Forman		0.40	person		429.00			170.57		10/N*1=10/35*1=0.28
											A-020
	Rigger		0.81	person		376.00			304.33		10/N*2=10/356*2=0.57
											A-023
	Common labor		0.40	person		184.00			73.16		10/N*1=10/35*1=0.28
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.40	day		15,564.67			6,188.51		10/N*1=10/35*1=0.28
											Breakdown No. 160
	Incidental costs	20% of operation fee	1.00	unit					1,237.70		20%
		sub total							7,974.27		
		per 1piece							797.43		
	Total								797.43		

Breakdown No.626

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
626	Rular work for piling			piece							
	Installation and removal for guide frame										
	per 10piece										
	Forman		1.58	person		429.00			675.68		A-020
	Rigger		4.31	person		376.00			1,618.68		A-023
	Common labor		1.82	person		184.00			334.88		A-022
	Operaion for crawler crane	50t	0.65	day		14,725.06			9,571.29		Breakdown No.137
	Incidental costs	10% of labor fee	1.00	unit					262.92		10%
	Total								12,463.45		

Breakdown No.629

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
629	Installation for substructure			t							
	H-beam, Channel, etc.										
	per 10t										
	Forman for bridge		7.35	person		429.00			3,153.15		A-020
	Skilled labor for bridge		13.65	person		336.00			4,586.40		A-021
	Welder		11.20	person		415.00			4,648.00		A-030
	Common labor		9.10	person		184.00			1,674.40		A-022
	Operaion for crawler crane	50t	1.90	day		14,725.06			27,977.61		Breakdown No.137
	Incidental costs	28% of labor fee	1.00	unit					11,771.08		28%
		sub total							53,810.64		
		per 1t							5,381.06		
	Total								5,381.06		

Breakdown No.630

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
630	removal for substructure			t							
	H-beam, Channel, etc.										
	per 10t										
	Forman for bridge		4.20	person		429.00			1,801.80		A-020
	Skilled labor for bridge		8.05	person		336.00			2,704.80		A-021
	Welder		5.60	person		415.00			2,324.00		A-030
	Common labor		4.55	person		184.00			837.20		A-022
	Operaion for crawler crane	50t	1.40	day		14,725.06			20,615.08		Breakdown No.137
	Incidental costs	2% of labor fee	1.00	unit					565.66		2%
		sub total							28,848.54		
		per 1t							2,884.85		
	Total								2,884.85		

Breakdown No.631

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
631	Installation for platform			t							
	H-beam										
	per 10t										
	Forman		5.60	person		429.00			2,402.40		A-020
	Rigger		5.60	person		336.00			1,881.60		A-021
	Welder		5.60	person		415.00			2,324.00		A-030
	Common labor		11.20	person		184.00			2,060.80		A-022
	Operaion for rough terrain crane	25t	1.60	day							counted separately
	Incidental costs	5% of labor fee	1.00	unit					433.44		5%
		sub total							9,102.24		
		per 1t							910.22		
	Total								910.22		

Breakdown No.632

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
632	removal for platform			t							
	small size material										
	per 10t										
	Forman		3.50	person		429.00			1,501.50		A-020
	Rigger		3.50	person		336.00			1,176.00		A-021
	Welder		3.50	person		415.00			1,452.50		A-030
	Common labor		7.00	person		184.00			1,288.00		A-022
	Operaion for rough terrain crane	25t	1.00	day							counted separately
	Incidental costs	6% of labor fee	1.00	unit					325.08		6%
		sub total							5,743.08		
		per 1t							574.31		
	Total								574.31		

Breakdown No.633

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
633	Installation/removal for stage end			m2							
	per 10m2										
	Forman		1.20	person		429.00			514.80		A-020
	Rigger			person		336.00					A-021
	Welder			person		415.00					A-030
	Common labor		2.40	person		184.00			441.60		A-022
	Operaion for rough terrain crane	25t		day							counted separately
	Incidental costs		1.00	unit							
		sub total							956.40		
		per 1m2							95.64		
	Total								95.64		

Breakdown No.634

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
634	Installation for steel plate			m2							
	per 100m2										
	Rigger		0.35	person		336.00			117.60		A-021
	Common labor		1.05	person		184.00			193.20		A-022
	Operaion for rough terrain crane	25t	0.10	day							counted separately
	Incidental costs		1.00	unit							
		sub total							310.80		
		per 1m2							3.11		
	Total								3.11		

Breakdown No.635

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
635	removal for steel plate			m2							
	per 100m2										
	Rigger		0.35	person		336.00			117.60		A-021
	Common labor		0.70	person		184.00			128.80		A-022
	Operaion for rough terrain crane	25t	0.10	day							counted separately
	Incidental costs		1.00	unit							
		sub total							246.40		
		per 1m2							2.46		
	Total								2.46		

Breakdown No.642

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
642	Welding for steel plate			m							
	Fillet welding 9mm～12mm, face down										
	per 15m (＝50×α)	α=0.3									
	Forman for bridge		3.50	person		429.00			1,501.50		A-020
	Welder for bridge		14.00	person		415.00			5,810.00		A-030
	Incidental costs	14% of the above	1.00	unit					1,023.61		14%
		sub total							8,335.11		
		per 1m							555.67		
	Total								555.67		

Breakdown No.643

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
643	Welding for steel plate (PU)			place							
	Fillet welding 9mm～12mm, face down										
	1place										
	weld length		3.50	m		555.67			1,944.85		Breakdown No.642
	Total								1,944.85		

Breakdown No.646

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
646	Sheet pile cutting			m							
	for Steel sheet pile, H-beam										
	per 100m										
	Oxygen		20.27	m3		505.80			10,252.57		I-19 /5
	Acetylene		8.69	kg		673.00			5,848.37		I-20 /5
	Incidental costs	5% of the above	1.00	unit					805.05		5%
	Welder		15.89	person		415.00			6,594.35		A-022
	Common labor		15.89	person		184.00			2,923.76		A-022
		sub total							26,424.10		
		per 1m							264.24		
	Total								264.24		

Breakdown No.649

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
649	Sheet pile driving			sheet							
	PU28+1, driving length L≦15m (Nmax＜50)										N＝17
	per 10sheet										
	Forman		0.84	person		429.00			359.42		10/N*1=0.59
											A-020
	Rigger		1.68	person		376.00			630.03		10/N*2=1.18
											A-023
	Common labor		0.84	person		184.00			154.16		10/N*1=0.59
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.84	day		15,564.67			13,040.08		10/N*1=0.59
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					3,120.41		22%
		sub total							17,304.10		
		per 1sheet							1,730.41		
		Total							1,730.41		

Breakdown No.650

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
650	Sheet pile driving			sheet							
	PU28+1, driving length L≦12m (Nmax＜50)										N＝20
	per 10sheet										
	Forman		0.71	person		429.00			304.59		10/N*1=0.5
											A-020
	Rigger		1.42	person		376.00			533.92		10/N*2=1
											A-023
	Common labor		0.71	person		184.00			130.64		10/N*1=0.5
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.71	day		15,564.67			11,050.92		10/N*1=0.5
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					2,644.42		22%
		sub total							14,664.49		
		per 1sheet							1,466.45		
	Total								1,466.45		

Breakdown No.651

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
651	Sheet pile driving			sheet							
	PU28+1, driving length L≦9m (Nmax＜50)										N＝25
	per 10sheet										
	Forman		0.57	person		429.00			243.67		10/N*1=0.4
											A-020
	Rigger		1.14	person		376.00			427.14		10/N*2=0.8
											A-023
	Common labor		0.57	person		184.00			104.51		10/N*1=0.4
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.57	day		15,564.67			8,840.73		10/N*1=0.4
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					2,115.53		22%
		sub total							11,731.58		
		per 1sheet							1,173.16		
		Total							1,173.16		

Breakdown No.652

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
652	Sheet pile driving			sheet							
	PU28+1, driving length L≦6m (Nmax＜50)										N＝31
	per 10sheet										
	Forman		0.45	person		429.00			194.94		10/N*1=0.32
											A-020
	Rigger		0.92	person		376.00			347.05		10/N*2=0.65
											A-023
	Common labor		0.45	person		184.00			83.61		10/N*1=0.32
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.45	day		15,564.67			7,072.59		10/N*1=0.32
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,693.60		22%
		sub total							9,391.79		
		per 1sheet							939.18		
	Total								939.18		

Breakdown No.653

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
653	Sheet pile driving			sheet							
	PU28+1, driving length L≦4m (Nmax＜50)										N＝38
	per 10sheet										
	Forman		0.37	person		429.00			158.39		10/N*1=0.26
											A-020
	Rigger		0.75	person		376.00			282.98		10/N*2=0.53
											A-023
	Common labor		0.37	person		184.00			67.93		10/N*1=0.26
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.37	day		15,564.67			5,746.48		10/N*1=0.26
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,376.27		22%
		sub total							7,632.05		
		per 1sheet							763.21		
		Total							763.21		

Breakdown No.654

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
654	Sheet pile driving			sheet							
	PU18, driving length L≦15m (Nmax＜50)										N＝20
	per 10sheet										
	Forman		0.71	person		429.00			304.59		10/N*1=0.5
											A-020
	Rigger		1.42	person		376.00			533.92		10/N*2=1
											A-023
	Common labor		0.71	person		184.00			130.64		10/N*1=0.5
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.71	day		15,564.67			11,050.92		10/N*1=0.5
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					2,644.42		22%
		sub total							14,664.49		
		per 1sheet							1,466.45		
	Total								1,466.45		

Breakdown No.655

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
655	Sheet pile driving			sheet							
	PU18, driving length L≦12m (Nmax＜50)										N＝24
	per 10sheet										
	Forman		0.60	person		429.00			255.86		10/N*1=0.42
											A-020
	Rigger		1.18	person		376.00			443.15		10/N*2=0.83
											A-023
	Common labor		0.60	person		184.00			109.74		10/N*1=0.42
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.60	day		15,564.67			9,282.77		10/N*1=0.42
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					2,220.13		22%
		sub total							12,311.65		
		per 1sheet							1,231.17		
	Total								1,231.17		

Breakdown No.656

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
656	Sheet pile driving			sheet							
	PU18, driving length L≦9m (Nmax＜50)										N＝29
	per 10sheet										
	Forman		0.48	person		429.00			207.12		10/N*1=0.34
											A-020
	Rigger		0.98	person		376.00			368.40		10/N*2=0.69
											A-023
	Common labor		0.48	person		184.00			88.84		10/N*1=0.34
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.48	day		15,564.67			7,514.62		10/N*1=0.34
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,799.38		22%
		sub total							9,978.36		
		per 1sheet							997.84		
	Total								997.84		

Breakdown No.657

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
657	Sheet pile driving			sheet							
	PU12, driving length L≦12m (Nmax＜50)										N＝28
	per 10sheet										
	Forman		0.51	person		429.00			219.30		10/N*1=0.36
											A-020
	Rigger		1.01	person		376.00			379.08		10/N*2=0.71
											A-023
	Common labor		0.51	person		184.00			94.06		10/N*1=0.36
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.51	day		15,564.67			7,956.66		10/N*1=0.36
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,902.80		22%
		sub total							10,551.90		
		per 1sheet							1,055.19		
	Total								1,055.19		

Breakdown No.658

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
658	Sheet pile driving			sheet							
	PU12, driving length L≦9m (Nmax＜50)										N＝33
	per 10sheet										
	Forman		0.43	person		429.00			182.75		10/N*1=0.3
											A-020
	Rigger		0.87	person		376.00			325.69		10/N*2=0.61
											A-023
	Common labor		0.43	person		184.00			78.38		10/N*1=0.3
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.43	day		15,564.67			6,630.55		10/N*1=0.3
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,587.82		22%
		sub total							8,805.19		
		per 1sheet							880.52		
	Total								880.52		

Breakdown No.659

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
659	Sheet pile driving			sheet							
	PU12, driving length L≦6m (Nmax＜50)										N＝39
	per 10sheet										
	Forman		0.37	person		429.00			158.39		10/N*1=0.26
											A-020
	Rigger		0.72	person		376.00			272.30		10/N*2=0.51
											A-023
	Common labor		0.37	person		184.00			67.93		10/N*1=0.26
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.37	day		15,564.67			5,746.48		10/N*1=0.26
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,373.92		22%
		sub total							7,619.02		
		per 1sheet							761.90		
	Total								761.90		

Breakdown No.660

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
660	Sheet pile driving			sheet							
	PU12, driving length L≦4m (Nmax＜50)										N＝45
	per 10sheet										
	Forman		0.31	person		429.00			134.02		10/N*1=0.22
											A-020
	Rigger		0.62	person		376.00			234.92		10/N*2=0.44
											A-023
	Common labor		0.31	person		184.00			57.48		10/N*1=0.22
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.31	day		15,564.67			4,862.40		10/N*1=0.22
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					1,163.54		22%
		sub total							6,452.36		
		per 1sheet							645.24		
	Total								645.24		

Breakdown No.661

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
661	Sheet pile driving			sheet							
	PU12, driving length L≦2m (Nmax＜50)										N＝55
	per 10sheet										
	Forman		0.26	person		429.00			109.65		10/N*1=0.18
											A-020
	Rigger		0.51	person		376.00			192.21		10/N*2=0.36
											A-023
	Common labor		0.26	person		184.00			47.03		10/N*1=0.18
											A-022
	Operation for vibratory hummer	Hydraulic, 232kw	0.26	day		15,564.67			3,978.33		10/N*1=0.18
											Breakdown No. 160
	Incidental costs	22% of the above	1.00	unit					951.99		22%
		sub total							5,279.21		
		per 1sheet							527.92		
	Total								527.92		

Breakdown No.662

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
662	Sheet pile press fitting			sheet							
	PU, driving length L≦15m (Nmax≦25)										N＝15
	per 10sheet										
	Forman		0.95	person		429.00			408.15		10/N*1=0.67
											A-020
	Skilled labor		0.95	person		336.00			319.67		10/N*1=0.67
											A-021
	Rigger		1.89	person		376.00			710.11		10/N*2=1.33
											A-023
	Operation for press-fitting machine	100-150t	0.95	day		213.15	54,456		202.79	51,809	10/N*1=0.67
											Breakdown No. 161
	Incidental costs	22% of the above	1.00	unit					16.41	518	1%
		sub total							1,657.13	52,327	
		per 1sheet							165.71	5,233	
	Total								165.71	5,233	

Breakdown No.663

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
663	Sheet pile press fitting			sheet							
	PU, driving length L≦12m (Nmax≦25)										N＝19
	per 10sheet										
	Forman		0.75	person		429.00			322.87		10/N*1=0.53
											A-020
	Skilled labor		0.75	person		336.00			252.87		10/N*1=0.53
											A-021
	Rigger		1.49	person		376.00			560.62		10/N*2=1.05
											A-023
	Operation for press-fitting machine	100-150t	0.75	day		213.15	54,456		160.42	40,984	10/N*1=0.53
											Breakdown No. 161
	Incidental costs	22% of the above	1.00	unit					12.97	410	1%
		sub total							1,309.75	41,394	
		per 1sheet							130.98	4,139	
	Total								130.98	4,139	

Breakdown No.664

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
664	Sheet pile press fitting			sheet							
	PU, driving length L≦9m (Nmax≦25)										N＝24
	per 10sheet										
	Forman		0.60	person		429.00			255.86		10/N*1=0.42
											A-020
	Skilled labor		0.60	person		336.00			200.39		10/N*1=0.42
											A-021
	Rigger		1.18	person		376.00			443.15		10/N*2=0.83
											A-023
	Operation for press-fitting machine	100-150t	0.60	day		213.15	54,456		127.12	32,478	10/N*1=0.42
											Breakdown No. 161
	Incidental costs	22% of the above	1.00	unit					10.27	325	1%
		sub total							1,036.79	32,803	
		per 1sheet							103.68	3,280	
	Total								103.68	3,280	

Breakdown No.665

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
665	Mobilization & demobilization	press fitting machine for sheet pile		LS							
	Forman		0.41	person		429.00			176.66		A-020
	Skilled labor		0.41	person		336.00			138.36		A-021
	Rigger		0.82	person		376.00			309.67		A-023
	Operation for press-fitting machine	100-150t	0.36	day		213.15	54,456		75.67	19,332	Breakdown No. 161
	Total								700.36	19,332	

Breakdown No.1001

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
1001	labor fee for installation for gate facility (gate, gate guide, lifting equipment)										
	2 sheet roller gate		1.00	unit							
	Worker fee （gate, gate guide, lifting equipment）										
	number of labor＝	[{ 3.3×(X1) + 19.93} upper gate + {3.37×(X2)+21.01}lower gate]×correction by number of gate×number of gate									

gate leaf	Bahr-Yusef	Ibrahimia	Sahelyia	Diroutiah	Badraman	Abo Gabal
upper gate	18.90	18.90	7.10	4.70	5.30	5.90
lower gate	20.40	20.40				
number of gate	4	4	2	3	2	4
correction coefficient	0.90	0.90	0.95	0.92	0.95	0.90

	1 Bahr-Yusef									
	mechanic	80% of total labor	1,734.36		382.00			662,523.61	A-032
	Common labor	20% of total labor	433.58		184.00			79,778.72	A-022
	2 Ibrahimia								
	mechanic	80% of total labor	1,734.36		382.00			662,523.61	A-032
	Common labor	20% of total labor	433.58		184.00			79,778.72	A-022
	3 Sahelyia								
	mechanic	80% of total labor	342.44		382.00			130,812.08	A-032
	Common labor	20% of total labor	85.61		184.00			15,752.24	A-022
	4 Diroutiah								
	mechanic	80% of total labor	436.24		382.00			166,643.68	A-032
	Common labor	20% of total labor	109.06		184.00			20,067.04	A-022
	5 Badraman								
	mechanic	80% of total labor	310.84		382.00			118,738.97	A-032
	Common labor	20% of total labor	77.70		184.00			14,296.80	A-022
	6 Abo Gabal								
	mechanic	80% of total labor	608.93		382.00			232,611.26	A-032
	Common labor	20% of total labor	152.25		184.00			28,014.00	A-022
	Total							2,211,540.73	

Breakdown No.1002

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1002	materaial fee for gate installation(gate, gate guide, lifting equipment)										
	2 sheet roller gate		1.00	unit							
	※labor fee for Mechanic 382LE×3.5×6.49YEN/LE= 8,677YEN (A-032)										
	labor fee for Mechanic in Japan 20,900YEN (SV-05)										
	20,900/8,677＝2.41										
	rate = (14.0% ＋4.0%) ×2.41＝43.38%										43.38%
	material fee	43.38% of labor fee	1.00	unit		959,366.37			959,366.37		× Incidental costs rate
	Total								959,366.37		

Breakdown No.1003

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
1003	Crane operating fee(80t) for installation for gate facility(gate, gate guide, lifting equipment)										
	2 sheet roller gate		1.00	unit							
	installation days＝[{0.22×(X1+X2)}+0.33]×number of gate										
	Track crane 80t										
	1 Bahr-Yusef										
	installation for gate	35% of total crane	17.85	day		13,490.00			240,788.41		B-009
	installation for lifting facility	20% of total crane	10.20	day		13,490.00			137,538.64		B-009
	installation for gate guide	45% of total crane	22.95	day		13,490.00			309,557.73		B-009
	2 Ibrahimia										
	installation for gate	35% of total crane	17.85	day		13,490.00			240,788.41		B-009
	installation for lifting facility	20% of total crane	10.20	day		13,490.00			137,538.64		B-009
	installation for gate guide	45% of total crane	22.95	day		13,490.00			309,557.73		B-009
	3 Sahelyia										
	installation for gate	35% of total crane	1.87	day		13,490.00			25,285.66		B-009
	installation for lifting facility	20% of total crane	1.08	day		13,490.00			14,558.41		B-009
	installation for gate guide	45% of total crane	2.41	day		13,490.00			32,564.86		B-009
	4 Diroutiah										
	installation for gate	35% of total crane	2.03	day		13,490.00			27,392.79		B-009
	installation for lifting facility	20% of total crane	1.16	day		13,490.00			15,707.76		B-009
	installation for gate guide	45% of total crane	2.61	day		13,490.00			35,246.67		B-009
	5 Badraman										
	installation for gate	35% of total crane	1.49	day		13,490.00			20,113.59		B-009
	installation for lifting facility	20% of total crane	0.85	day		13,490.00			11,493.48		B-009
	installation for gate guide	45% of total crane	1.92	day		13,490.00			25,860.33		B-009
	6 Abo Gabal										
	installation for gate	35% of total crane	3.24	day		13,490.00			43,675.22		B-009
	installation for lifting facility	20% of total crane	1.85	day		13,490.00			24,902.54		B-009
	installation for gate guide	45% of total crane	4.16	day		13,490.00			56,126.49		B-009
		Total							1,708,697.36		

gate leaf	Bahr-Yusef	Ibrahimia	Sahelyia	Diroutiah	Badraman	Abo Gabal
upper gate	18.90	18.90	7.10	4.70	5.30	5.90
lower gate	20.40	20.40				
number of gate	4	4	2	3	2	4
correction coefficient	0.90	0.90	0.95	0.92	0.95	0.90

Breakdown No.1004

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
1004	Welder operating fee for installation for gate facility(gate, gate guide, lifting equipment)										
	2 sheet roller gate		1.00	unit							
	installation days＝[{0.55×(X1+X2)}-0.5]×number of gate, on site welding										
	fuel comsumption	5hours operating/day									
	1.6 Lit/h×5h＝8.0 Lit/day										
	Welder cost										
	1 Bahr-Yusef										
	Welder		119.93	day		965.00			115,735.54		B-052
	fuel		959.47	Lit		2.00			1,918.93		I-017
	2 Ibrahimia										
	Welder		119.93	day		965.00			115,735.54		B-052
	fuel		959.47	Lit		2.00			1,918.93		I-017
	3 Sahelyia										
	Welder		9.67	day		965.00			9,331.74		B-052
	fuel		77.36	Lit		2.00			154.72		I-017
	4 Diroutiah										
	Welder		17.64	day		965.00			17,019.13		B-052
	fuel		141.09	Lit		2.00			282.18		I-017
	5 Badraman										
	Welder		12.10	day		965.00			11,674.96		B-052
	fuel		96.79	Lit		2.00			193.57		I-017
	6 Abo Gabal										
	Welder		24.88	day		965.00			24,007.66		B-052
	fuel		199.03	Lit		2.00			398.05		I-017
	Total								298,370.95		

gate leaf	Bahr-Yusef	Ibrahimia	Sahelyia	Diroutiah	Badraman	Abo Gabal
upper gate	18.90	18.90	7.10	4.70	5.30	5.90
lower gate	20.40	20.40				
number of gate	4	4	2	3	2	4
correction coefficien	0.90	0.90	0.95	0.92	0.95	0.90

Breakdown No.1005

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
1005	labor fee for stop log installation (gate guide)		1.00	unit							
	Worker fee (gate guide)										
	number of labor＝	{ 1.6×(X1) + 7.52 } × correction coefficient by number of gate × number of gate									
	1 Bahr-Yusef										
	mechanic	80% of total labor	709.63			382.00			271,076.75		A-032
	Common labor	20% of total labor	177.42			184.00			32,644.36		A-022
	2 Ibrahimia										
	mechanic	80% of total labor	709.63			382.00			271,076.75		A-032
	Common labor	20% of total labor	177.42			184.00			32,644.36		A-022
	3 Sahelyia										
	mechanic	80% of total labor	100.45			382.00			38,371.90		A-032
	Common labor	20% of total labor	25.10			184.00			4,617.48		A-022
	4 Diroutiah										
	mechanic	80% of total labor	116.24			382.00			44,401.77		A-032
	Common labor	20% of total labor	29.05			184.00			5,345.20		A-022
	5 Badraman										
	mechanic	80% of total labor	85.12			382.00			32,515.84		A-032
	Common labor	20% of total labor	21.28			184.00			3,915.52		A-022
	6 Abo Gabal										
	mechanic	80% of total labor	170.94			382.00			65,299.08		A-032
	Common labor	20% of total labor	42.74			184.00			7,863.24		A-022
	Total								809,772.25		

gate leaf	Bahr-Yusef	Ibrahimia	Sahelyia	Diroutiah	Badraman	Abo Gabal
upper gate	18.90	18.90	7.10	4.70	5.30	5.90
lower gate	20.40	20.40				
number of gate	4	4	2	3	2	4
correction coefficient	0.90	0.90	0.95	0.92	0.95	0.90

Breakdown No.1006

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1006	labor fee for stop log installation (over head crene)		1.00	unit							
	ceiling crene	manual operation, 5t									
	including installation fee for rail										
	23.2person										23.2
	mechanic	80% of total labor	64.96	person		382.00			24,814.72		A-032
	Common labor	20% of total labor	16.24	person		184.00			2,988.16		A-022
	Total								27,802.88		

Breakdown No.1007

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1007	material fee for stop log installation (over head crene, gate guide)		1.00	unit							
	plate girder stop log (4 vents)										
1	gate guide										
	※ 382LE×3.5×6.49YEN/LE= 8,677YEN (A-032)										
	20,900 YEN（SV-05）										
	20,900/8,677＝2.41										
	Incidental costs＝（14.0%＋4.0%）×2.41＝43.38%										43.38%
	material fee	43.38 % of labor fee for stop log	1.00	unit		351,279.20			351,279.20		× Incidental costs rate
2	over head crane										
	manual operation, 5t										
	※rate of installation ： 1.0%										
	※rate of subservient materials : 2.0%										
	Incidental costs＝(1.0%＋2.0%)×2.41＝7.23%										7.23%
	material fee	7.23 % of labor fee for stop log	1.00	unit		2,010.15			2,010.15		× Incidental costs rate
	Total								353,289.35		

Breakdown No.1008

No.	Item	Grade	Quantity	Unit	Unit Price US$	Unit Price LE	Unit Price YEN	Amount US$	Amount LE	Amount YEN	Remarks
1008	machine fee for stop log installation		1.00	unit							
	Truck crane	installation days... 1 day × correction coefficient by number of gate × number of gate									
	welder	installation days... 4 day × correction coefficient by number of gate × number of gate									
1	gate guide, over head crene										
	Truck crane				included in Expense of the machine and facilities						
2	Welder cost										
	fuel comsumption	5hours operating/day									
	1.6 Lit/h×5h＝8.0 Lit/day										
	1 Bahr-Yusef										
	Welder		20.45	day		965.00			19,732.32		B-052
	fuel		163.58	Lit		2.00			327.17		I-017
	2 Ibrahimia										
	Welder		20.45	day		965.00			19,732.32		B-052
	fuel		163.58	Lit		2.00			327.17		I-017
	3 Sahelyia										
	Welder		10.79	day		965.00			10,414.28		B-052
	fuel		86.34	Lit		2.00			172.67		I-017
	4 Diroutiah										
	Welder		15.68	day		965.00			15,128.11		B-052
	fuel		125.41	Lit		2.00			250.83		I-017
	5 Badraman										
	Welder		10.79	day		965.00			10,414.28		B-052
	fuel		86.34	Lit		2.00			172.67		I-017
	6 Abo Gabal										
	Welder		20.45	day		965.00			19,732.32		B-052
	fuel		163.58	Lit		2.00			327.17		I-017
	Total								96,731.31		

gate leaf	Bahr-Yusef	Ibrahimia	Sahelyia	Diroutiah	Badraman	Abo Gabal
number of gate	4	4	2	3	2	4
correction coefficien	0.90	0.90	0.95	0.92	0.95	0.90

Breakdown No.1009

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1009	installation of remote operation panel		1.00	nos							
1	electric tecnician	N = 1.0	1.00	person		431.20			431.20		A-031×1.1
2	electrician	N =1.0+2.0+2.0 =5.0	17.50	person		392.00			6,860.00		A-031
	Total								6,860.00		

Breakdown No.1010

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1010	installation for electric power distribution board		1.00	nos							
1	electric tecnician	N = 0.5	1.75	person		431.20			754.60		A-031×1.1
2	electrician	N = 2.0	7.00	person		392.00			2,744.00		A-031
3	Common labor	N = 1.0	3.50	person		184.00			644.00		A-022
	Total								3,388.00		

Breakdown No.1011

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1011	backup generator		1.00	nos							
	50KVA										
1	electric tecnician	N = 5.0	5.00	person		431.20			2,156.00		A-031×1.1
2	electrician	N = 11.0	38.50	person		392.00			15,092.00		A-031
3	mechanic	N = 8.5	29.75	person		382.00			11,364.50		A-032
4	plumber	N = 4.0	14.00	person		370.00			5,180.00		A-033
5	Common labor	N = 2.5	8.75	person		184.00			1,610.00		A-022
	Total								33,246.50		

Breakdown No.1012

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1012	water level indicator		1.00	unit							
	1 units										
1	electric tecnician	N=1.0	1.00	person		431.20			431.20		A-031×1.1
2	electrician	N=2.0	7.00	person		392.00			2,744.00		A-031
	Total								2,744.00		

Breakdown No.1013

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1013	Installation for Steet light (mercury lump)		1.00	基							
	400W										
1	Installation for post for street light										
1)	electrician		38.50	person		392.00			15,092.00		A-031
2)	Common labor		8.75	person		184.00			1,610.00		A-022
3)	truck										counted separately
1	lighting apparatus										
1)	electrician	N = 0.41/2 =0.205	0.72	person		392.00			281.26		A-031
2)	Common labor	N = 0.21/2 =0.105	0.37	person		184.00			67.62		A-022
3)	scaffolding										
	scaffolding (three stage)＝1.8m(W)×1.7m(H)×3 = 9.18m2		9.18	m2		161.52			1,482.75		Breakdown No.309
	Total								18,533.63		

Breakdown No.1014

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1014	electric cable	with material	1.00	m							
	CV 3.5sq -2C										
1	labor										
	electrician		0.06	person		392.00			23.32		A-031
2	material										
	CV 3.5sq -2C		1.10	m		17.26			18.98		
3	Incidental costs	5.0% of material fee	1.00	unit		0.95			0.95		5%
	Total								43.25		

Breakdown No.1015

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1015	electric cable	with material	1.00	m							
	CV 8sq -2C										
1	labor										
	electrician		0.08	person		392.00			31.56		A-031
2	material										
	CV 8sq -2C		1.10	m		30.20			33.22		
3	Incidental costs	5.0% of material fee	1.00	unit		1.66			1.66		5%
	Total								66.44		

Breakdown No.1016

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1016	electric cable	with material	1.00	m							
	CV 14sq -2C										
1	labor										
	electrician		0.10	person		392.00			39.79		A-031
2	material										
	CV 14sq -2C		1.10	m		45.45			50.00		
3	Incidental costs	5.0% of material fee	1.00	unit		2.50			2.50		5%
	Total								92.29		

Breakdown No.1017

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1017	electric cable	with material	1.00	m							
	CV 22sq -2C										
1	labor										
	electrician		0.13	person		392.00			50.76		A-031
2	material										
	CV 22sq -2C		1.05	m		67.18			70.54		
3	Incidental costs	5.0% of material fee	1.00	unit		3.53			3.53		5%
	Total								124.83		

Breakdown No.1018

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1018	electric cable	with material	1.00	m							
	CV 2sq -3C										
1	labor										
	electrician		0.06	person		392.00			23.32		A-031
2	material										
	CV 2sq -3C		1.10	m		16.02			17.63		
3	Incidental costs	5.0% of material fee	1.00	unit		0.88			0.88		5%
	Total								41.83		

Breakdown No.1019

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1019	electric cable	with material	1.00	m							
	CV 5.5sq -3C										
1	labor										
	electrician		0.09	person		392.00			35.67		A-031
2	material										
	CV 5.5sq -3C		1.10	m		31.28			34.41		
3	Incidental costs	5.0% of material fee	1.00	unit		1.72			1.72		5%
	Total								71.80		

Breakdown No.1020

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1020	electric cable	with material	1.00	m							
	CV 8sq -3C										
1	labor										
	electrician		0.10	person		392.00			39.79		A-031
2	material										
	CV 8sq -3C		1.10	m		41.14			45.25		
3	Incidental costs	5.0% of material fee	1.00	unit		2.26			2.26		5%
	Total								87.30		

Breakdown No.1021

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1021	electric cable	with material	1.00	m							
	CV 14sq -3C										
1	labor										
	electrician		0.13	person		392.00			50.76		A-031
2	material										
	CV 14sq -3C		1.10	m		63.17			69.49		
3	Incidental costs	5.0% of material fee	1.00	unit		3.47			3.47		5%
	Total								123.72		

Breakdown No.1022

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1022	electric cable	with material	1.00	m							
	CV 22sq -3C										
1	labor										
	electrician		0.16	person		392.00			64.48		A-031
2	material										
	CV 22sq -3C		1.05	m		94.30			99.01		
3	Incidental costs	5.0% of material fee	1.00	unit		4.95			4.95		5%
	Total								168.44		

Breakdown No.1023

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1023	electric cable	with material	1.00	m							
	CV 38sq -3C										
1	labor										
	electrician		0.22	person		392.00			85.06		A-031
2	material										
	CV 38sq -3C		1.05	m		154.08			161.79		
3	Incidental costs	5.0% of material fee	1.00	unit		8.09			8.09		5%
	Total								254.94		

Breakdown No.1024

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1024	electric cable	with material	1.00	m							
	CV 8sq -4C										
1	labor										
	electrician		0.12	person		392.00			48.02		A-031
2	material										
	CV 8sq -4C		1.10	m		53.93			59.32		
3	Incidental costs	5.0% of material fee	1.00	unit		2.97			2.97		5%
	Total								110.31		

Breakdown No.1025

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1025	electric cable	with material	1.00	m							
	CV 38sq -4C										
1	labor										
	electrician		0.26	person		392.00			101.53		A-031
2	material										
	CV 38sq -4C		1.05	m		205.08			215.34		
3	Incidental costs	5.0% of material fee	1.00	unit		10.77			10.77		5%
	Total								327.64		

Breakdown No.1026

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1026	electric cable	with material	1.00	m							
	CVV 2sq -4C										
1	labor										
	electrician		0.08	person		392.00			30.18		A-031
2	material										
	CVV 2sq -4C		1.10	m		19.57			21.53		
3	Incidental costs	3.0% of material fee	1.00	unit		0.65			0.65		3%
	Total								52.36		

Breakdown No.1027

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1027	electric cable	with material	1.00	m							
	CVV 2sq -5C										
1	labor										
	electrician		0.10	person		392.00			38.42		A-031
2	material										
	CVV 2sq -5C		1.10	m		22.50			24.75		
3	Incidental costs	3.0% of material fee	1.00	unit		0.74			0.74		3%
	Total								63.91		

Breakdown No.1028

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1028	electric cable	with material	1.00	m							
	CVV 2sq -8C										
1	labor										
	electrician		0.12	person		392.00			46.65		A-031
2	material										
	CVV 2sq -8C		1.10	m		35.29			38.81		
3	Incidental costs	3.0% of material fee	1.00	unit		1.16			1.16		3%
	Total								86.62		

Breakdown No.1029

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1029	electric cable	with material	1.00	m							
	CVV 2sq -10C										
1	labor										
	electrician		0.15	person		392.00			57.62		A-031
2	material										
	CVV 2sq -10C		1.10	m		43.30			47.63		
3	Incidental costs	3.0% of material fee	1.00	unit		1.43			1.43		3%
	Total								106.68		

Breakdown No.1030

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1030	electric cable	with material	1.00	m							
	CVV 2sq -20C										
1	labor										
	electrician		0.25	person		392.00			96.04		A-031
2	material										
	CVV 2sq -20C		1.10	m		84.28			92.71		
3	Incidental costs	3.0% of material fee	1.00	unit		2.78			2.78		3%
	Total								191.53		

Breakdown No.1031

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1031	electric cable	with material	1.00	m							
	CVV 2sq -30C										
1	labor										
	electrician		0.29	person		392.00			113.88		A-031
2	material										
	CVV 2sq -30C		1.10	m		123.42			135.76		
3	Incidental costs	3.0% of material fee	1.00	unit		4.07			4.07		3%
	Total								253.71		

Breakdown No.1032

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1032	electric cable	with material	1.00	m							
	CVVS 2sq -2C										
1	labor										
	electrician		0.06	person		392.00			23.32		A-031
2	material										
	CVVS 2sq -2C		1.10	m		21.42			23.56		
3	Incidental costs	3.0% of material fee	1.00	unit		0.71			0.71		3%
	Total								47.59		

Breakdown No.1033

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1033	electric cable	with material	1.00	m							
	CVVS 2sq -10C										
1	labor										
	electrician		0.15	person		392.00			57.62		A-031
2	material										
	CVVS 2sq -10C		1.10	m		59.32			65.25		
3	Incidental costs	3.0% of material fee	1.00	unit		1.96			1.96		3%
	Total								124.83		

Breakdown No.1034

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1034	electric cable	with material	1.00	m							
	CVVS 2sq -15C										
1	labor										
	electrician		0.21	person		392.00			82.32		A-031
2	material										
	CVVS 2sq -15C		1.10	m		81.66			89.83		
3	Incidental costs	3.0% of material fee	1.00	unit		2.69			2.69		3%
	Total								174.84		

Breakdown No.1035

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1035	electric cable	with material	1.00	m							
	CVVS 2sq -30C										
1	labor										
	electrician		0.29	person		392.00			113.88		A-031
2	material										
	CVVS 2sq -30C		1.10	m		140.22			154.24		
3	Incidental costs	3.0% of material fee	1.00	unit		4.63			4.63		3%
	Total								272.75		

Breakdown No.1036

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1036	electric cable	with material	1.00	m							
	CPEV 0.9sq -3P										
1	labor										
	electrician		0.08	person		392.00			30.18		A-031
2	material										
	CPEV 0.9sq -3P		1.10	m		16.02			17.63		
3	Incidental costs	3.0% of material fee	1.00	unit		0.53			0.53		3%
	Total								48.34		

Breakdown No.1037

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1037	electric wire	with material	1.00	m							
	IV 3.5sq										
1	labor										
	electrician		0.05	person		392.00			19.21		A-031
2	material										
	IV 3.5sq		1.15	m		5.56			6.40		
3	Incidental costs	5.0% of material fee	1.00	unit		0.32			0.32		5%
	Total								25.93		

Breakdown No.1038

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1038	electric wire	with material	1.00	m							
	IV 5.5sq										
1	labor										
	electrician		0.05	person		392.00			19.21		A-031
2	material										
	IV 5.5sq		1.15	m		8.52			9.80		
3	Incidental costs	5.0% of material fee	1.00	unit		0.49			0.49		5%
	Total								29.50		

Breakdown No.1039

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1039	electric wire	with material	1.00	m							
	IV 8sq										
1	labor										
	electrician		0.06	person		392.00			21.95		A-031
2	material										
	IV 8sq		1.15	m		12.02			13.82		
3	Incidental costs	5.0% of material fee	1.00	unit		0.69			0.69		5%
	Total								36.46		

Breakdown No.1040

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1040	electric wire	with material	1.00	m							
	IV 14sq										
1	labor										
	electrician		0.07	person		392.00			27.44		A-031
2	material										
	IV 14sq		1.15	m		20.80			23.92		
3	Incidental costs	5.0% of material fee	1.00	unit		1.20			1.20		5%
	Total								52.56		

Breakdown No.1041

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1041	electric wire	with material	1.00	m							
	IV 22sq										
1	labor										
	electrician		0.08	person		392.00			32.93		A-031
2	material										
	IV 22sq		1.10	m		31.74			34.92		
3	Incidental costs	5.0% of material fee	1.00	unit		1.75			1.75		5%
	Total								69.60		

Breakdown No.1042

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1042	conduits	with material	1.00	m							
	FEP 30										
1	labor										
	electrician		0.09	person		392.00			35.67		A-031
2	material										
	FEP 30		1.05	m		33.74			35.43		
3	Incidental costs	5.0% of material fee	1.00	unit		1.77			1.77		5%
	Total								72.87		

Breakdown No.1043

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1043	conduits	with material	1.00	m							
	FEP 40										
1	labor										
	electrician		0.11	person		392.00			42.53		A-031
2	material										
	FEP 40		1.05	m		36.98			38.83		
3	Incidental costs	5.0% of material fee	1.00	unit		1.94			1.94		5%
	Total								83.30		

Breakdown No.1044

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1044	conduits	with material	1.00	m							
	FEP 50										
1	labor										
	electrician		0.12	person		392.00			48.02		A-031
2	material										
	FEP 50		1.05	m		43.61			45.79		
3	Incidental costs	5.0% of material fee	1.00	unit		2.29			2.29		5%
	Total								96.10		

Breakdown No.1045

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1045	conduits	with material	1.00	m							
	FEP 65										
1	labor										
	electrician		0.14	person		392.00			54.88		A-031
2	material										
	FEP 65		1.05	m		53.62			56.30		
3	Incidental costs	5.0% of material fee	1.00	unit		2.82			2.82		5%
	Total								114.00		

Breakdown No.1046

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1046	conduits	with material	1.00	m							
	FEP 80										
1	labor										
	electrician		0.16	person		392.00			61.74		A-031
2	material										
	FEP 80		1.05	m		70.11			73.61		
3	Incidental costs	5.0% of material fee	1.00	unit		3.68			3.68		5%
	Total								139.03		

Breakdown No.1047

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1047	conduits	with material	1.00	m							
	FEP 100										
1	labor										
	electrician		0.21	person		392.00			82.32		A-031
2	material										
	FEP 100		1.05	m		95.99			100.79		
3	Incidental costs	5.0% of material fee	1.00	unit		5.04			5.04		5%
	Total								188.15		

Breakdown No.1048

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1048	conduits	with material	1.00	m							
	FEP 125										
1	labor										
	electrician		0.23	person		392.00			90.55		A-031
2	material										
	FEP 125		1.05	m		128.51			134.93		
3	Incidental costs	5.0% of material fee	1.00	unit		6.75			6.75		5%
	Total								232.23		

Breakdown No.1049

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1049	conduits	with material	1.00	m							
	G 28										
1	labor										
	electrician		0.25	person		392.00			98.78		A-031
2	material										
	G 28		1.05	m		59.01			61.96		
3	Incidental costs	5.0% of material fee	1.00	unit		3.10			3.10		5%
	Total								163.84		

Breakdown No.1050

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1050	conduits	with material	1.00	m							
	G 36										
1	labor										
	electrician		0.30	person		392.00			117.99		A-031
2	material										
	G 36		1.05	m		75.35			79.11		
3	Incidental costs	5.0% of material fee	1.00	unit		3.96			3.96		5%
	Total								201.06		

Breakdown No.1051

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1051	handhole	with material	1.00	nos							
	900×900×900										
	Skilled labor		2.64	person		336.00			887.04		A-021
	Common labor		1.14	person		184.00			209.76		A-022
	Truck crene	5t	0.27	day							included in rental fee
	handhole	900×900×900	1.00	m		17,503.85			17,503.85		
	Total								18,600.65		

Breakdown No.1052

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1052	earth work (excavation／backfill)		1.00	m3							
	per 1m(for pipe installation)										
1	excavation by manpower										
	0.6m(W)×0.8m(H)×1m(L) = 0.48m3		0.48	m3		154.56			74.19		Breakdown No.220
2	backfill										
	0.6m(W)×0.8m(H)×1m(L) = 0.48m3		0.48	m3		88.49			42.48		Breakdown No.210
	Total								116.67		

Breakdown No.1101

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1101	installation for gate facility (gate, groove, lifting equipment)		1.00	unit							
1	labor fee for installation for gate facility		1.00	unit		2,211,540.73			2,211,540.73		Breakdown No.1001
2	material fee for installation for gate facility		1.00	unit		959,366.37			959,366.37		Breakdown No.1002
3	expense of machinery fee										
	operating fee for installation for gate facility (track crane 80t)		1.00	unit		1,708,697.36			1,708,697.36		Breakdown No.1003
	operating fee for installation for gate facility (welder)		1.00	unit		298,370.95			298,370.95		Breakdown No.1004
	incidental cost	2% of the expense	1.00	unit					40,141.37		2.0%
4	platform		1.00	unit							counted separately
5	direct expense	7% of labor fee	1.00	unit					154,807.85		7.0%
	計								5,372,924.63		

Breakdown No.1102

No.	Item	Grade	Quantity	Unit	Unit Price			Amount			Remarks
					US$	LE	YEN	US$	LE	YEN	
1102	stop log installation materal fee (over head crene, groove)		1.00	unit							
1	labor fee of installation for stop log (for 4 vents)		1.00	unit		809,772.25			809,772.25		Breakdown No.1005
2	stop log installation materal fee (over head crene)		1.00	unit		27,802.88			27,802.88		Breakdown No.1006
3	stop log installation materal fee (over head crene, groove)										
	stop log installation materal fee (over head crene, groove)		1.00	unit		353,289.35			353,289.35		Breakdown No.1007
	incidental cost	2% of the expense	1.00	unit					7,065.79		2%
4	machine fee for stop log installation		1.00	unit		96,731.31			96,731.31		Breakdown No.1008
5	direct expense	7% of labor fee	1.00	unit					56,684.06		7%
	計								1,351,345.63		

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House, Local Control and Stop Log Buildings		SUMMARY TENDER DOCUMENTS- REV 1
Item no.	Item description	Amount L.E
1	Control House Cost	2,669,915
2	Local Control Cost (2 buildings)	815,100
3	Stoplog Stoor Room Cost	1,104,550
Entire Cost of All Buildings		4,589,565

*** The above entire cost is including the indirect cost (35% of the direct cost).**

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION A – EARTHWORK TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION A - EARTHWORK					
1	Excavation in any kinds of soil down to required foundation level including supporting sides of excavation with safe and proper method, shoring, dewatering and compaction excavation bottom, the price shall include disposal of excavated materials off site to an approved dumping area.	740	m^3	30	22,200
2	Soil replacement from material supplied from outside according to specification to with at least 50 cm thickness and to the required levels according to drawings	150	m^3	120	18,000
3	Backfill using suitable excavated soil approved materials as recommended in soil report; lay on 25 thick for each layer including compaction up to 95% of dry density as per specifications.	350	m^3	80	28,000
TOTAL SECTION A					68,200

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION B – CONCRETE TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Rates of Concrete Works shall include all form works, shuttering in any form, shape and size, allowing for and making grooves and sleeves and the like; removal of forms, making good the harmed surfaces and edges and all surface finishing, supplying, casting, vibrating and curing as per specifications, approved additives and admixtures. The cost will include concrete mix designs, sample taking, testing and providing test results certificates, preparation of bar bending schedules and workshops, supplying reinforcement of any grade, size and length as detailed in the drawings, spacers, bar testing and providing test results certificates, all as per the Engineer's instruction.					
SECTION B - CAST-IN-PLACE CONCRETE					
	Plain Cast- in-Place Concrete				
1	Below Isolated Footings and ground beam.	120	m^3	1000	120000
2	Slab on grade 20 cm.	50	m^3	1000	50000
3	70mm average slope light weight concrete for Roof.	250	m^2	90	22500
	Reinforced cast-in-place concrete with type (I) cement, the minimum 28 days cubic compressive strength fcu,300 kg/cm^2 including formwork, movement joints, and construction joints, water stop wherever necessary and concrete tests all as per drawings and in accordance with specifications. Items include steel bar reinforcement				
1	Isolated Footings	70	m^3	4200	294000
2	Ground Beams	15	m^3	4500	67500
3	Columns	40	m^3	4800	192000
4	Beams	40	m^3	4800	192000
5	Slabs	75	m^3	4500	337500
TOTAL SECTION B					1,275,500

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION C – MASONARY TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Supply and apply Light Weight unit masonry, of max density 600 kg/m3 including- but not limited to cement mortar (1:4) bedding, all types of joints, lintels, jointing curing, stiffeners, bed joint reinforcement, ties, head restraint and RC ring beam if needed as detailed in the drawings as well as all shop drawings and tests according to the specification and the Engineer's instructions.					
SECTION C - UNIT MASONRY					
1	120 mm thick wall	370	m^2	140	51800
2	250 mm thick wall	170	m^3	1000	170000
TOTAL SECTION C					221,800

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION D – THERMAL AND MOISTURE PROTECTION TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
The price includes all Detailed manufacturer shop drawings and data sheet required for approval before commencing the work.					
Samples required for all accessories for approval before the commencing of the work.					
The price shall include- but not limited to -all needed tests, overlaps, waterstops, junctions, joints and sealants , protectin layers, accessories.					
Time schedule to be submitted for approval and monthly update by the contractor.					
SECTION D- THERMAL AND MOISTURE PROTECTION					
MOISTURE PROTECTION					
1	Cold fluid applied 3 coats bituminous paints for foundations and building below ground level all as per drawings and specifications	625	m^2	35	21875
2	Waterproofing Membrane 4 mm thick. for Roofs Toilets and wet areas, including overlaps , protection screed , Sealant and vertical skirting	350	m^2	120	42000
THERMAL PROTECTION					
1	Injected Polystyrene 50 mm thick. for roof heat insulation.	200	m^2	110	22000
TOTAL SECTION D					85,875

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION E – DOORS AND WINDOWS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION E - DOORS AND WINDOWS					
ALUMINUM WINDOWS					
	Powder coated aluminum Windows including glazing, frame, hardware, fixation and all accessories to complete work according to specifications and drawings				
1	Window type W1	29	No.	2000	58000
2	Window type W 2	6	No.	1800	10800
3	Window type W3	4	No.	2000	8000
4	Window type W4	2	No.	2000	4000
SECTION 08120- ALUMINUM DOORS AND FRAMES					
	Powder coated aluminum doors including glazing, frame, hardware, fixation and all accessories to complete work according to specifications and drawings				
1	Door type D 6	4	No.	4000	16000
STEEL DOORS AND FRAMES					
	Supply and install Steel doors with high quilty according to specification and client approval the item include and limited to finishing, frame, hardware, fixation and all accessories to complete work according to specifications and drawings				
1	Door type D 1	3	No.	6000	18000
SECTION 08210- WOOD DOORS AND FRAMES					
	Wooden door, including frame, fixation, hardwares, and all accessories to complete work according to specifications and drawings				
1	Door type D 2	3	No.	3000	9000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION E – DOORS AND WINDOWS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
2	Door type D 3	4	No.	6000	24000
3	Door type D 4	4	No.	3000	12000
4	Door type D 5	6	No.	3000	18000
TOTAL SECTION E					177,800

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION F – FINISHES					
The rates for Finishes shall include but not limited to the provision and installation of materials, labours, metal stop or angle beads, lathing at joints of different backgrounds, Construction joint sealants, all Types of Fixtures , Floor Moulds, threshold, Skirting wherever required, accesories ,trim and Special Shapes, together with the provision of any samples or sample panels, according to drawings , Specs and instruction by the Engineer .					
The price includes all Detailed manufacturer shop drawings and data sheet required for approval before commencing the work.					
Samples required for all accessories for approval before commencing the work.					
Time schedule to be submitted for approval and monthly update by the contractor.					
LATH AND PLASTER					
	Cement plaster applied directly on surfaces of external concrete or masonry including metal beads and other fixing accessories all in accordance with the specifications.				
1	Internal Ceilings	370	m^2	50	18500
2	Internal Walls	700	m^2	50	35000
3	External walls and other places where required.	550	m^2	100	55000
PAINTING					
1	Supply and apply emulsion paint for Internal walls and ceiling to plaster , as shown on the drawings according to specification and client approval.	1,100	m^2	75	82500
2	Supply and apply Kemstone paint for External walls to plaster, as shown on the drawings according to specification and client approval.	550	m^2	100	55000
MOZAIC TILES					
1	Supply and apply Mozaic tiles for the Sidewalk and terrace the item include clean sand and mortar layers and all requirements to complete works as per drawings and specifications	280	m^2	100	28000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	Item description	Qty	Unit	Rate	Amount L.E
TOTAL					274,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
CERAMIC TILES					
1	Supply and apply Ceramic floor tiles 300× 300 mm laid on screed including fixing , sand leveling , expansion joints and sealants as required and grout according to technical specifications	370	m^2	180	66600
2	Supply and apply ceramic wall tiles including fixing, leveling , expansion joints and sealants , mortar bedding for concrete and brick wall, and adhesive material to the dry partitions according to drawings and technical specifications.	285	m^2	200	57000
3	Supply and apply ceramic Skirting 15 cm including fixing, leveling and all the required for completing the work according to drawings and technical specifications.	290	m	80	23200
MARBLE FLOORING					
1	Supply and apply Galala marble marble to stairs landings laid on screed including side Skirting, fixing , mortar , sand leveling , and pointed in coloured grout, according to drawings and technical specifications	10	m^2	400	4000
2	Supply and apply Galala marble for Stairs (Rise 20 mm Thick and Tread 40 mm Thick) including , side Skirting , grooves, and laid on screed including fixing , mortar, sand leveling , and pointed in coloured grout, according to drawings and technical specifications	75	m	250	18750
TOTAL					169,550

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION F - FINISHES - SUMMARY					
	Section Summary Page				
1	Page 1				274,000
2	Page 2				169,550
SECTION F – FINISHES					443,550

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS					
EARTHING SYSTEM					
	Supply, install, connect and test of earthing system including excavation and backfilling, welding, test links, earthing pits, including earthing of building foundation reinforcing bans and all necessary accessories and ancillary works as per specifications and				
1	Earthing system for power systems (less than 3 ohm)	1	LS	10000	10000
2	Earthing system for low current systems (less than 1 ohm)	1	LS	5000	5000
Wires and Cables					
Low Voltage Cables					
	Supply, install, connect and test of low voltage cables (0.6/1 KV) installed on cable trays or extended in conduits including cables, cable trays, cable ladders, conduits, manholes, duct banks, identifications, cable terminations and all necessary accessories and ancillary works as per specifications and				
	Multicore XLPE/PVC insulated copper cables				
1	(4 x 25)+16E mm2	1	LS	20000	20000
TOTAL					35,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Raceways, Boxes and Fittings					
Lighting Outlets					
	Supply, install, connect and test of wall or ceiling lighting outlet, including conduit, conduit fittings, cable trunking, PVC/PVC cables (from panel board to the first outlet in the circuit) then using single core PVC copper conductors inside conduits till last outlet in the circuit , earthing, cable trunking, conduits, boxes and all necessary accessories and ancillary works as per				
1	Lighting outlet for lighting fixture type F1	31	No.	350	10850
2	Lighting outlet for lighting fixture type F2	12	No.	350	4200
3	Lighting outlet for lighting fixture type F3	18	No.	350	6300
4	Lighting outlet for lighting fixture type F4	4	No.	350	1400
5	Lighting outlet for lighting fixture type F5	6	No.	350	2100
6	Lighting outlet for lighting fixture type F6	4	No.	350	1400
7	Lighting outlet for lighting fixture type F7	4	No.	350	1400
8	Lighting outlet for lighting fixture type F10	16	No.	350	5600
9	Lighting outlet for lighting fixture type EXIT sign	2	No.	300	600
Lighting Switches Outlets					
	Supply, install, connect and test of outlets for lighting switches, including conduits, conduit fittings, wiring / cables, earthing and all necessary accessories and ancillary works as per specifications and drawings.				
1	Outlet for one way one gang switch 10 A.	14	No.	250	3500
2	Outlet for one way one gang switch 10 A (Weather proof).	6	No.	270	1620
3	Outlet for one way two gang switch 10 A.	3	No.	260	780
4	Outlet for one way two gang switch 10 A (Weather proof).	2	No.	280	560

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
5	Outlet for two way one gang switch 10 A.	14	No.	270	3780
TOTAL					44,090

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Socket Outlets					
	Supply, install, connect and test of socket outlets including conduits, conduit fittings, cable trunking, PVC/PVC cables (from panel board to the first outlet in the circuit) then using single core PVC copper conductors inside conduits till last outlet in the circuit , cables and wires sizes as per panel board schedules and all necessary accessories and ancillary works as per specifications and drawings				
1	Outlet for single phase single socket 16 A.	8	No.	400	3200
2	Outlet for single phase single socket 16 A.(Weather proof)	4	No.	420	1680
3	Outlet for single phase duplex socket 16 A.	40	No.	400	16000
4	Outlet for single phase power socket 20 A.	1	No.	450	450
5	Electric outlet 20 A water heater	2	No.	450	900
6	Exhaust fan outlet 10 A, 220 V	6	No.	300	1800
Switch Disconnectors (Isolators) Outlets					
	Supply, install, connect and test of isolators outlets including conduits, conduit fittings, cable trunking, PVC/PVC cables / wiring, , earthing and all necessary accessories and ancillary works as per specifications and				
1	Outlet for 20 A, 220 V, disconnect switch	1	No.	450	450
2	Outlet for 25 A, 220 V, disconnect switch	12	No.	500	6000
Wiring Devices					
Switches					
	Supply, install, connect and test of lighting switches as listed below, complete with all necessary accessories, spare parts and ancillary works as per specifications and				
1	one way one gang switch 10 A.	14	No.	200	2800
2	one way one gang switch 10 A (Weather proof).	6	No.	250	1500
3	one way two gang switch 10 A.	3	No.	250	750

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
4	one way two gang switch 10 A (Weather proof).	2	No.	280	560
5	two way one gang switch 10 A.	14	No.	280	3920
TOTAL					40,010

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Electrical Sockets					
	Supply, install, connect and test of sockets as specified and as shown in drawings and as listed below, complete with all necessary accessories, spare parts and ancillary works as per specifications and drawings.				
1	single phase single socket 16 A.	8	No.	300	2400
2	single phase single socket 16 A.(Weather proof)	4	No.	360	1440
3	single phase duplex socket 16 A.	40	No.	350	14000
4	single phase power socket 20 A.	1	No.	500	500
Lighting Fixtures					
	Supply, install, connect , test and commission of disconnect switches (isolators) including all necessary accessories and ancillary works required for complete installation as per specifications and drawings.				
1	20 A, 220 V, disconnect switch	1	No.	450	450
2	25 A, 220 V, disconnect switch	12	No.	500	6000
Low Voltage Distribution Boards					
	Supply, install, connect and test of low voltage distribution boards including circuit breakers relays and all necessary accessories, spare parts and ancillary works as per specifications and drawings.				
1	PB-G	1	No.	12000	12000
2	PB-F	1	No.	12000	12000
Addressable Fire Alarm System					

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
	Supply, install, test and connect of the following to the fire alarm control panel at the control house and monitoring building according to standard specifications and drawings complete with fire resistance cable (2x1.5 mm2) insulated inside uPVC conduits of fire resistance type with appropriate diameters, conduit fittings, hand holes, junction boxes with insulated terminal strips, if required, with ceiling plates, nuts, washers and all necessary accessories and ancillary works required for complete operative system as specified and as shown in the drawings.				
1	Addressable type fire alarm control and display panel (FACP)	1	No.	100000	100000
2	Addressable type fire alarm optical type smoke detector	11	No.	350	3850
3	Addressable fire alarm multi detector	1	No.	350	350
4	Addressable fire alarm manual call station	2	No.	350	700
5	Fire alarm signal control module	2	No.	350	700
6	Fire alarm Siren with flash	2	No.	350	700
7	Control module	2	No.	350	700
8	Fire alarm End- of- line unit	2	No.	350	700
9	Air Condition	5	No.	12000	60000
TOTAL					216,490

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS					
	Section Summary Page				
1	Page 1				35,000
2	Page 2				44,090
3	Page 3				40,010
4	Page 4				216,490
SECTION G – ELECTRICAL WORKS					335,590

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION H – MECHANICAL TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
PIPING AND FITTING MATERIALS					
	Supply, install, connect, and test polypropylene piping (PN20) systems for Domestic cold, hot water systems located aboveground and all around the building. Hot water pipes shall be insulated as specified. The pipes shall be surface or embedded complete, including pipes and fittings, valves , supports and hangers and all other accessories according to the specification and as shown on drawings.				
1	2 " Pipe diameter	20	M	300	6000
2	1" Pipe diameter	25	M	190	4750
3	0.5 " Pipe diameter	25	M	140	3500
	Supply, install, connect and test all soil, waste and vent UPVC vertical, horizontal drainage piping system inside the building complete including pipes, fittings, couplings, supports, hangers and all other accessories as specified and as shown on drawings.				
4	3" Pipe diameter	35	M	250	8750
5	4" Pipe diameter	25	M	320	8000
PLUMBING SPECIALTIES					
2	Supply and Install (F.D) floor drain with 150 mm round flat strainer and stainless steel cover.Thhe F.D. outlet shall be 82 mm diameter.	8	No.	600	4800
5	Supply and Install roof drain (RD-01). The roof drain shall be coated cast iron body with bottom outlet, combination invertible membrane clamp and adjustable collar	2	No.	900	1800
TOTAL					37600

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION H – MECHANICAL TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION 15440- PLUMBING FIXTURES AND TRIM					
1	Toilet seat the item include and not limted to valves & toilet tissue holder. shall be equipped with flexible perineal hose. The item shall include the necessary water supply & drainage piping according to specification and tender drawings.	6	No.	2000	12000
2	Lavatory (LAV) complete with water mixer,The item shall include the necessary water supply & drainage piping complete with all other accessories according to specification and tender drawings.	6	No.	1000	6000
3	Urinal (UR) with flush valve The item shall include the necessary water supply & drainage piping according to specification and tender drawings.	4	No.	1500	6000
TOTAL					24000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SECTION H – MECHANICAL TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION H – MECHANICAL - SUMMARY					
	Section Summary Page				
1	Page 1				37600
2	Page 2				24000
TOTAL SECTION H					61600

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Control House				SUMMARY TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
TOTAL SUMMARY					
Sections Summary Page					
SECTION A					68,200
SECTION B					1,275,500
SECTION C					221,800
SECTION D					85,875
SECTION E					177,800
SECTION F					443,550
SECTION G					335,590
SECTION G					61,600
TOTAL OF DIVISIONS					2,669,915

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION A – EARTHWORK TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION A - EARTHWORK					
1	Excavation in any kinds of soil down to required foundation level including supporting sides of excavation with safe and proper method, shoring, dewatering and compaction excavation bottom, the price shall include disposal of excavated materials off site to an approved dumping area.	225	m^3	30	6,750
2	Soil replacement from material supplied from outside according to specification to with at least 50 cm thickness and to the required levels according to drawings	45	m^3	120	5,400
3	Backfill using suitable excavated soil approved materials as recommended in soil report; lay on 25 thick for each layer including compaction up to 95% of dry density as per specifications.	125	m^3	80	10,000
TOTAL SECTION A					22,150

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION B – CONCRETE TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Rates of Concrete Works shall include all form works, shuttering in any form, shape and size, allowing for and making grooves and sleeves and the like; removal of forms, making good the harmed surfaces and edges and all surface finishing, supplying, casting, vibrating and curing as per specifications, approved additives and admixtures. The cost will include concrete mix designs, sample taking, testing and providing test results certificates, preparation of bar bending schedules and workshops, supplying reinforcement of any grade, size and length as detailed in the drawings, spacers, bar testing and providing test results certificates, all as per the Engineer's instruction.					
SECTION B - CAST-IN-PLACE CONCRETE					
	Plain Cast- in-Place Concrete				
1	Below Isolated Footings and ground beam.	36	m^3	1000	36000
2	70mm average slope light weight concrete for Roof.	60	m^2	90	5400
	Reinforced cast-in-place concrete with type (I) cement, the minimum 28 days cubic compressive strength fcu,300 kg/cm^2 including formwork, movement joints, and construction joints, water stop wherever necessary and concrete tests all as per drawings and in accordance with specifications. Items include steel bar reinforcement				
1	Isolated Footings	18	m^3	4200	75600
2	Ground Beams	5	m^3	4500	22500
3	Columns	7	m^3	4800	33600
4	Beams	8	m^3	4800	38400
5	Slabs	9	m^3	4500	40500
TOTAL SECTION B					252,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION C – MASONARY TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Supply and apply Light Weight unit masonry, of max density 600 kg/m3 including- but not limited to cement mortar (1:4) bedding, all types of joints, lintels, jointing curing, stiffeners, bed joint reinforcement, ties, head restraint and RC ring beam if needed as detailed in the drawings as well as all shop drawings and tests according to the specification and the Engineer's instructions.					
SECTION C - UNIT MASONRY					
1	250 mm thick wall	30	m^3	1000	30000
TOTAL SECTION C					30,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION D – THERMAL AND MOISTURE PROTECTION TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
The price includes all Detailed manufacturer shop drawings and data sheet required for approval before commencing the work.					
Samples required for all accessories for approval before the commencing of the work.					
The price shall include- but not limited to -all needed tests, overlaps, waterstops, junctions, joints and sealants , protectin layers, accessories.					
Time schedule to be submitted for approval and monthly update by the contractor.					
SECTION D- THERMAL AND MOISTURE PROTECTION					
1	Cold fluid applied 3 coats bituminous paints for foundations all as per drawings and specifications	200	m^2	35	7000
TOTAL SECTION D					7,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION E – DOORS AND WINDOWS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION E - DOORS AND WINDOWS					
ALUMINUM WINDOWS					
	Powder coated aluminum Windows including glazing, frame, hardware, fixation and all accessories to complete work according to specifications and drawings				
1	Window type W01	6	No.	2200	13200
STEEL DOORS AND FRAMES					
	Powder coated aluminum doors including glazing, frame, hardware, fixation and all accessories to complete work according to specifications and drawings				
1	Door type D1, Two Leaves Steel Door	1	No.	6000	6000
TOTAL SECTION E					19,200

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION F – FINISHES					
The rates for Finishes shall include but not limited to the provision and installation of materials, labours, metal stop or angle beads, lathing at joints of different backgrounds, Construction joint sealants, all Types of Fixtures , Floor Moulds, threshold, Skirting wherever required, accesories ,trim and Special Shapes, together with the provision of any samples or sample panels, according to drawings , Specs and instruction by the Engineer .					
The price includes all Detailed manufacturer shop drawings and data sheet required for approval before commencing the work.					
Samples required for all accessories for approval before commencing the work.					
Time schedule to be submitted for approval and monthly update by the contractor.					
LATH AND PLASTER					
	Cement plaster applied directly on surfaces of external concrete or masonry including metal beads and other fixing accessories all in accordance with the specifications.				
1	Internal Ceilings	60	m^2	50	3000
2	Internal Walls	110	m^2	50	5500
3	External walls and other places where required.	110	m^2	100	11000
MOZAIC TILES					
1	Supply and apply Mozaic tiles for the Sidewalk item include clean sand and mortar layers and all requirements to complete works as per drawings and specifications	8	m^2	100	800
FLUID APPLIED FLOORING					
1	Helicopter finished Exposed P. concrete 20 cm Thickness	50	m^2	300	15000
PAINTING					

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
1	Supply and apply emulsion paint for Internal walls and ceiling to plaster , as shown on the drawings .	165	m^2	50	8250
2	Supply and apply Kemstone paint for External walls to plaster, as shown on the drawings .	110	m^2	100	11000
SECTION F – FINISHES					54,550

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS					
Raceways, Boxes and Fittings					
Lighting Outlets					
	Supply, install, connect and test of wall or ceiling lighting outlet, including conduit, conduit fittings, cable trunking, PVC/PVC cables (from panel board to the first outlet in the circuit) then using single core PVC copper conductors inside conduits till last outlet in the circuit , earthing, cable trunking, conduits, boxes and all necessary accessories and ancillary works as per specifications and drawings.				
1	Lighting outlet for lighting fixture type F9	6	No.	450	2700
2	Lighting outlet for lighting fixture type EXIT sign	1	No.	300	300
TOTAL					3,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Lighting Switches Outlets					
	Supply, install, connect and test of outlets for lighting switches, including conduits, conduit fittings, wiring / cables, earthing and all necessary accessories and ancillary works as per specifications and drawings.				
1	Outlet for one way one gang switch 10 A.	2	No.	250	500
Socket Outlets					
	Supply, install, connect and test of socket outlets including conduits, conduit fittings, cable trunking, PVC/PVC cables (from panel board to the first outlet in the circuit) then using single core PVC copper conductors inside conduits till last outlet in the circuit , cables and wires sizes as per panel board schedules and all necessary accessories and ancillary works as per specifications and drawings				
1	Outlet for single phase power socket 20 A.	2	No.	500	1000
Wiring Devices					
Switches					
	Supply, install, connect and test of lighting switches as listed below, complete with all necessary accessories, spare parts and ancillary works as per specifications and drawings.				
1	one way one gang switch 10 A.	2	No.	200	400
Electrical Sockets					
	Supply, install, connect and test of sockets as specified and as shown in drawings and as listed below, complete with all necessary accessories, spare parts and ancillary works as per specifications and				
1	single phase power socket 20 A.	2	No.	500	1000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	Item description	Qty	Unit	Rate	Amount L.E
TOTAL					2,900

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Low Voltage Distribution Boards					
	Supply, install, connect and test of low voltage distribution boards including circuit breakers relays and all necessary accessories, spare parts and ancillary works as per specifications and drawings.				
1	PB-ST	1	No.	4000	4000
Lighting Fixtures					
	Supply, install, connect and test of lighting fixtures including lamps, ballast and lamp holders and all necessary accessories, spare parts and ancillary works as per specifications and as shown in lighting fixtures schedules.				
1	Lighting fixture type F9	6	No.	1600	9600
2	Lighting fixture type EXIT sign	1	No.	700	700
Addressable Fire Alarm System					
	Supply, install, test and connect of the following to the fire alarm control panel at the control house and monitoring building according to standard specifications and drawings complete with fire resistance cable (2x1.5 mm2) insulated inside uPVC conduits of fire resistance type with appropriate diameters, conduit fittings, hand holes, junction boxes with insulated terminal strips, if required, with ceiling plates, nuts, washers and all necessary accessories and ancillary works required for complete operative system as specified				
1	Addressable fire alarm multi detector	2	No.	350	700
2	Addressable fire alarm manual call station	1	No.	350	350
3	Fire alarm signal control module	1	No.	350	350
4	Fire alarm Siren with flash weather proof type	1	No.	350	350

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
5	Control module	1	No.	350	350
6	Fire alarm End- of- line unit	1	No.	350	350
TOTAL					16,750

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS - SUMMARY					
	Section Summary Page				
1	Page 1				3,000
2	Page 2				2,900
3	Page 3				16,750

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SECTION G – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS					22,650

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Local Control Room				SUMMARY TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
TOTAL SUMMARY					
Sections Summary Page					
SECTION A					22,150
SECTION B					252,000
SECTION C					30,000
SECTION D					7,000
SECTION E					19,200
SECTION F					54,550
SECTION G					22,650
Note) The total amount in this sheet should be double to evaluate two local control house in the Bahr Yusef and the Ibrahimia regulator					
TOTAL OF DIVISIONS for 1 building					407,550

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION A – EARTHWORK TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION A - EARTHWORK					
1	Excavation in any kinds of soil down to required foundation level including supporting sides of excavation with safe and proper method, shoring, dewatering and compaction excavation bottom, the price shall include disposal of excavated materials off site to an approved dumping area.	860	m^3	30	25,800
2	Soil replacement from material supplied from outside according to specification to with at least 50 cm thickness and to the required levels according to drawings	135	m^3	120	16,200
3	Backfill using suitable excavated soil approved materials as recommended in soil report; lay on 25 thick for each layer including compaction up to 95% of dry density as per specifications.	220	m^3	80	17,600
TOTAL SECTION A					59,600

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION B – CONCRETE TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Rates of Concrete Works shall include all form works, shuttering in any form, shape and size, allowing for and making grooves and sleeves and the like; removal of forms, making good the harmed surfaces and edges and all surface finishing, supplying, casting, vibrating and curing as per specifications, approved additives and admixtures. The cost will include concrete mix designs, sample taking, testing and providing test results certificates, preparation of bar bending schedules and workshops, supplying reinforcement of any grade, size and length as detailed in the drawings, spacers, bar testing and providing test results certificates, all as per the Engineer's instruction.					
SECTION B - CAST-IN-PLACE CONCRETE					
	Plain Cast- in-Place Concrete				
1	Below Isolated Footings and ground beam.	110	m^3	1000	110000
2	70mm average slope light weight concrete for Roof.	155	m^2	90	13950
	Reinforced cast-in-place concrete with type (I) cement, the minimum 28 days cubic compressive strength fcu,300 kg/cm^2 including formwork, movement joints, and construction joints, water stop wherever necessary and concrete tests all as per drawings and in accordance with specifications. Items include steel bar reinforcement				
1	Isolated Footings	45	m^3	4200	189000
2	Ground Beams	12	m^3	4500	54000
3	Columns	20	m^3	4800	96000
4	Beams	32	m^3	4800	153600
5	Slabs	10	m^3	4500	45000
TOTAL SECTION B					661,550

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION C – MASONARY TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Supply and apply Light Weight unit masonry, of max density 600 kg/m3 including- but not limited to cement mortar (1:4) bedding, all types of joints, lintels, jointing curing, stiffeners, bed joint reinforcement, ties, head restraint and RC ring beam if needed as detailed in the drawings as well as all shop drawings and tests according to the specification and the Engineer's instructions.					
SECTION C - UNIT MASONRY					
1	250 mm thick wall	100	m^3	1000	100000
TOTAL SECTION C					100,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION D – THERMAL AND MOISTURE PROTECTION TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
The price includes all Detailed manufacturer shop drawings and data sheet required for approval before commencing the work.					
Samples required for all accessories for approval before the commencing of the work.					
The price shall include- but not limited to -all needed tests, overlaps, waterstops, junctions, joints and sealants , protectin layers, accessories.					
Time schedule to be submitted for approval and monthly update by the contractor.					
SECTION D- THERMAL AND MOISTURE PROTECTION					
1	Cold fluid applied 3 coats bituminous paints for foundations and building below ground level all as per drawings and specifications	750	m^2	35	26250
TOTAL SECTION D					26,250

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION E – DOORS AND WINDOWS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION E - DOORS AND WINDOWS					
ALUMINUM WINDOWS					
	Powder coated aluminum Windows including glazing, frame, hardware, fixation and all accessories to complete work according to specifications and drawings				
1	Window type W01	10	No.	2200	22000
STEEL DOORS AND FRAMES					
	Supply and install roller shutter with high quilty according to specification and client approval the item include and limited to the operating motors,all fixations and electrical connection.				
1	Roler Shutter 3500*3500 mm	1	No.	10000	10000
TOTAL SECTION E					32,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION F – FINISHES TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION F – FINISHES					
The rates for Finishes shall include but not limited to the provision and installation of materials, labours, metal stop or angle beads, lathing at joints of different backgrounds, Construction joint sealants, all Types of Fixtures , Floor Moulds, threshold, Skirting wherever required, accesories ,trim and Special Shapes, together with the provision of any samples or sample panels, according to drawings , Specs and instruction by the Engineer .					
The price includes all Detailed manufacturer shop drawings and data sheet required for approval before commencing the work.					
Samples required for all accessories for approval before commencing the work.					
Time schedule to be submitted for approval and monthly update by the contractor.					
LATH AND PLASTER					
	Cement plaster applied directly on surfaces of external concrete or masonry including metal beads and other fixing accessories all in accordance with the specifications.				
1	Internal Ceilings	155	m^2	50	7750
2	Internal Walls	415	m^2	50	20750
3	External walls and other places where required.	390	m^2	100	39000
FLUID APPLIED FLOORING					
1	Helicopter finished Exposed P. concrete 20 cm Thickness	170	m^2	300	51000
2	Rough finished Exposed P.concrete 20 cm Thickness	70	m^2	250	17500
PAINTING					
1	Supply and apply emulsion paint for Internal walls and ceiling to plaster , as shown on the drawings .	550	m^2	50	27500
2	Supply and apply Kemstone paint for External walls to plaster, as shown on the drawings .	390	m^2	100	39000
SECTION F – FINISHES					202,500

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS					
Raceways, Boxes and Fittings					
Lighting Outlets					
	Supply, install, connect and test of wall or ceiling lighting outlet, including conduit, conduit fittings, cable trunking, PVC/PVC cables (from panel board to the first outlet in the circuit) then using single core PVC copper conductors inside conduits till last outlet in the circuit , earthing, cable trunking, conduits, boxes and all necessary accessories and ancillary works as per specifications and drawings.				
1	Lighting outlet for lighting fixture type F9	6	No.	450	2700
2	Lighting outlet for lighting fixture type EXIT sign	1	No.	300	300
TOTAL					3,000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Lighting Switches Outlets					
	Supply, install, connect and test of outlets for lighting switches, including conduits, conduit fittings, wiring / cables, earthing and all necessary accessories and ancillary works as per specifications and drawings.				
1	Outlet for one way one gang switch 10 A.	2	No.	250	500
Socket Outlets					
	Supply, install, connect and test of socket outlets including conduits, conduit fittings, cable trunking, PVC/PVC cables (from panel board to the first outlet in the circuit) then using single core PVC copper conductors inside conduits till last outlet in the circuit , cables and wires sizes as per panel board schedules and all necessary accessories and ancillary works as per specifications and drawings				
1	Outlet for single phase power socket 20 A.	2	No.	500	1000
Wiring Devices					
Switches					
	Supply, install, connect and test of lighting switches as listed below, complete with all necessary accessories, spare parts and ancillary works as per specifications and drawings.				
1	one way one gang switch 10 A.	2	No.	200	400
Electrical Sockets					
	Supply, install, connect and test of sockets as specified and as shown in drawings and as listed below, complete with all necessary accessories, spare parts and ancillary works as per specifications and				
1	single phase power socket 20 A.	2	No.	500	1000

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	Item description	Qty	Unit	Rate	Amount L.E
TOTAL					2,900

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
Low Voltage Distribution Boards					
	Supply, install, connect and test of low voltage distribution boards including circuit breakers relays and all necessary accessories, spare parts and ancillary works as per specifications and drawings.				
1	PB-ST	1	No.	4000	4000
Lighting Fixtures					
	Supply, install, connect and test of lighting fixtures including lamps, ballast and lamp holders and all necessary accessories, spare parts and ancillary works as per specifications and as shown in lighting fixtures schedules.				
1	Lighting fixture type F9	6	No.	1600	9600
2	Lighting fixture type EXIT sign	1	No.	700	700
Addressable Fire Alarm System					
	Supply, install, test and connect of the following to the fire alarm control panel at the control house and monitoring building according to standard specifications and drawings complete with fire resistance cable (2x1.5 mm2) insulated inside uPVC conduits of fire resistance type with appropriate diameters, conduit fittings, hand holes, junction boxes with insulated terminal strips, if required, with ceiling plates, nuts, washers and all necessary accessories and ancillary works required for complete operative system as specified				
1	Addressable fire alarm multi detector	2	No.	350	700
2	Addressable fire alarm manual call station	1	No.	350	350
3	Fire alarm signal control module	1	No.	350	350
4	Fire alarm Siren with flash weather proof type	1	No.	350	350

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
5	Control module	1	No.	350	350
6	Fire alarm End- of- line unit	1	No.	350	350
TOTAL					16,750

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS - SUMMARY					
	Section Summary Page				
1	Page 1				3,000
2	Page 2				2,900
3	Page 3				16,750

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SECTION G – ELECTRICAL WORKS TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
SECTION G – ELECTRICAL WORKS					22,650

CLIENT: PROJECT : Construction of the New Dirout Group of Regulators Building Name : Stoplog store room				SUMMARY TENDER DOCUMENTS- REV 1	
Item no.	**Item description**	**Qty**	**Unit**	**Rate**	**Amount L.E**
TOTAL SUMMARY					
Sections Summary Page					
SECTION A					59,600
SECTION B					661,550
SECTION C					100,000
SECTION D					26,250
SECTION E					32,000
SECTION F					202,500
SECTION F					22,650
TOTAL OF DIVISIONS					1,104,550

Integrated Water Management System

As of 16 April, 2017

No.	Item	Grade	Unit	Quantity	Rate			Amount		
					Foreign		Local	Foreign		Local
					JPY	US$	L.E.	JPY	US$	L.E.
	WM-1. Gauging station (Type-A (5 nos))									
WM-1- 1	WATER LEVEL SENSOR	including Cables	set	5		2,845			14,223	
WM-1- 2	SOLAR CELLS PANEL	including Mount Bracket, Cables	set	5		635			3,175	
WM-1- 3	ENCLOSURE	including Mount Bracket	set	5		1,729			8,643	
WM-1- 4	SURGE PROTECTIVE DEVICE	including Cables for water level sensor	set	5		500			2,500	
WM-1- 5	SURGE PROTECTIVE DEVICE	including Cables for solar cells panel	set	5		1,100			5,500	
WM-1- 6	GPRS MODEM	including Antenna, Mount Bracket, Cables	set	5		2,310			11,550	
WM-1- 7	RTU	including Mount Bracket, Cables	set	5		2,970			14,848	
WM-1- 8	DATA LOGGER	including Mount Bracket, Cables	set	5		1,500			7,500	
WM-1- 9	POWER CHARGE CONTROLLER	including Mount Bracket, Cables	set	5		585			2,926	
WM-1- 10	STORAGE BATTERY	including Mount Bracket, Cables	set	5		375			1,873	
WM-1- 11	GROUNDING TERMINAL	including Mount Bracket	set	5		100			500	
WM-1- 12	Program software for RTU		set	5		2,113			10,563	
	Total								83,799	

As of 16 April, 2017

No.	Item	Grade	Unit	Quantity	Rate			Amount		
					Foreign		Local	Foreign		Local
					JPY	US$	L.E.	JPY	US$	L.E.
	WM-2. Gauging station (Type-B (36 nos))									
WM-2- 1	WATER LEVEL SENSOR	including Cables	set	72		2,845			204,804	
WM-2- 2	SOLAR CELLS PANEL	including Mount Bracket, Cables	set	36		635			22,860	
WM-2- 3	ENCLOSURE	including Mount Bracket	set	36		1,729			62,230	
WM-2- 4	SURGE PROTECTIVE DEVICE	including Cables for water level sensor	set	72		500			36,000	
WM-2- 5	SURGE PROTECTIVE DEVICE	including Cables for solar cells panel	set	36		1,100			39,600	
WM-2- 6	GPRS MODEM	including Antenna, Mount Bracket, Cables	set	36		2,310			83,160	
WM-2- 7	RTU	including Mount Bracket, Cables	set	36		2,970			106,902	
WM-2- 8	DATA LOGGER	including Mount Bracket, Cables	set	36		1,500			54,000	
WM-2- 9	POWER CHARGE CONTROLLER	including Mount Bracket, Cables	set	36		585			21,068	
WM-2- 10	STORAGE BATTERY	including Mount Bracket, Cables	set	36		375			13,482	
WM-2- 11	GROUNDING TERMINAL	including Mount Bracket	set	36		100			3,600	
WM-2- 12	Program software for RTU		set	36		2,113			76,050	
	Total								723,756	

As of 16 April, 2017

No.	Item	Grade	Unit	Quantity	Rate			Amount		
					Foreign		Local	Foreign		Local
					JPY	US$	L.E.	JPY	US$	L.E.
	WM-3. Master station									
WM-3 1	LCD MONITOR	including Wall mount bracket	set	1		4,200			4,200	
WM-3 2	LASER PRINTER	including Table, Cables	set	1		3,250			3,250	
WM-3 3	SERVER	including Monitor, Keyboard, Mouse, Cables	sets	3		9,400			28,200	
WM-3 4	COMPUTER RACK	including Power duct, Power Unit, Brank panel	set	1		4,580			4,580	
WM-3 5	GPRS MODEM	including Antenna, Rack mount plate, Cables	set	1		2,050			2,050	
WM-3 6	PERSONAL COMPUTER	including Monitor, Keyboard, Mouse, Cables	set	1		1,850			1,850	
WM-3 7	LCD KVM SWITCH	including Rack mount bracket, Cables	set	1		4,200			4,200	
WM-3 8	L2-SW	including Rack mount bracket, Cables	set	1		2,300			2,300	
WM-3 9	ROUTER	including Rack mount plate, Cables	set	1		3,000			3,000	
WM-3 10	UPS	including Rack mount plate, Cables (1KVA)	set	1		7,925			7,925	
WM-3 11	Software		set	1		16,250			16,250	
WM-3 12	Application software for Telemetry system		set	1		1,625			1,625	
	Total								79,430	

As of 16 April, 2017

No.	Item	Grade	Unit	Quantity	Rate			Amount		
					Foreign		Local	Foreign		Local
					JPY	US$	L.E.	JPY	US$	L.E.
	WM-4. Monitoring station									
WM-4 1	LCD MONITOR	including WALL MOUNT XETTING OPTION	set	1		4,200			4,200	
WM-4 2	PERSONAL COMPUTER	including 22"Monitor, Keyboard, Mouse, Cables	set	1		1,850			1,850	
WM-4 3	ROUTER	including Cables	set	1		3,000			3,000	
WM-4 4	Application software for Telemetry system		set	1		1,625			1,625	
	Total								10,675	

As of 16 April, 2017

No.	Item	Grade	Unit	Quantity	Rate			Amount		
					Foreign		Local	Foreign		Local
					JPY	US$	L.E.	JPY	US$	L.E.
	WM-5. Installation Cost									
WM-5- 1	Gauging station (41 stations)	including site acquision, cost of fence and pole with foundation works, fixing equipments, adjustment and others	LS	1		905,689			905,689	
WM-5- 2	Master and Monitoring station	including cables, installation and adjustment	LS	1		7,738			7,738	
	Total								913,427	

WM-1. Gauging station (Type-A (5 nos))	83,799		
WM-2. Gauging station (Type-B (36 nos))	723,756		
WM-3. Master station	79,430		
WM-4. Monitoring station	10,675		
	897,660	USD	
WM-5. Installation Cost			
Gauging station (41 stations)	905,689		
Master and Monitoring station	7,738		
	913,427	USD	
Total	1,811,087	USD	(= 31,628,452 LE)

E-8-5. Unit Price List

A. Personnel Fee (Local)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
A-01	Civil engineer	20 years experience	Month	41,675	1.000	47,926	311,040	+15%
A-02	Civil engineer	15 years experience	Month	31,700	1.000	36,455	236,593	+15%
A-03	Civil engineer	10 years experience	Month	23,409	1.000	26,920	174,711	+15%
A-04	Civil engineer	5 years experience	Month	16,315	1.000	18,762	121,765	+15%
A-05	Architect	20 years experience	Month	41,675	1.000	47,926	311,040	+15%
A-06	Architect	15 years experience	Month	31,700	1.000	36,455	236,593	+15%
A-07	Architect	10 years experience	Month	23,409	1.000	26,920	174,711	+15%
A-08	Architect	5 years experience	Month	16,315	1.000	18,762	121,765	+15%
A-09	Mechanical engineer	10 years experience	Month	20,859	1.000	23,988	155,682	+15%
A-10	Electrical engineer	10 years experience	Month	21,359	1.000	24,563	159,414	+15%
A-11	Surveyor		Month	13,790	1.000	15,859	102,925	+15%
A-12	Surveyor Assistant		Month	8,140	1.000	9,361	60,753	+15%
A-13	Draft man	CAD operator	Month	11,123	1.000	12,791	83,014	+15%
A-14	Administrator	10 years experience	Month	15,077	1.000	17,339	112,530	+15%
A-15	Administrative secretary		Month	8,540	1.000	9,821	63,738	+15%
A-16	Asistant administrator		Month	7,244	1.000	8,331	54,068	+15%
A-17	Office boy		Month	4,782	1.000	5,499	35,689	+15%
A-18	Driver	Dump, Cargo	Month	10,113	1.000	11,630	75,479	+15%
A-19	Security guard	Daytime	Month	4,250	1.000	4,888	31,723	+15%
A-20	Forman		Day	373	1.000	429	2,784	+15%
A-21	Skilled labor		Day	292	1.000	336	2,181	+15%
A-22	Common labor		Day	184	1.000	184	1,194	
A-23	Rigger		Day	327	1.000	376	2,440	+15%
A-24	Re-bar fixer		Day	327	1.000	376	2,440	+15%
A-25	Operator	for construction equipm	Day	378	1.000	435	2,823	+15%
A-26	Carpenter		Day	340	1.000	391	2,538	+15%
A-27	Plasterer		Day	322	1.000	370	2,401	+15%
A-28	Masonry		Day	322	1.000	370	2,401	+15%
A-29	Painter		Day	322	1.000	370	2,401	+15%
A-30	Welder		Day	361	1.000	415	2,693	+15%
A-31	Electrician	General	Day	341	1.000	392	2,544	+15%
A-32	Mechanic		Day	332	1.000	382	2,479	+15%
A-33	Plumber		Day	322	1.000	370	2,401	+15%
A-34	Security		Day		1.000			+15%
A-35	Driver	Dump, Cargo	Day	383	1.000	440	2,856	+15%

B. Equipment Hire

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
B-1	Backhoe	0.45m3	Day	2,733	1.000	2,733	17,737	
B-2	Backhoe	0.8m3	Day	3,567	1.000	3,567	23,150	
B-3	Backhoe	1.4m3	Day	3,993	1.000	3,993	25,915	
B-4	Breaker	1300kg	Day	3,350	1.000	3,350	21,742	
B-5	Truck crane	5t	Day	2,737	1.000	2,737	17,763	
B-6	Truck crane	20t	Day	3,963	1.000	3,963	25,720	
	Truck crane	25t	Day	5,195	1.000	5,195	33,716	
B-7	Truck crane	35t	Day	6,608	1.000	6,608	42,886	
B-8	Truck crane	50t	Day	9,410	1.000	9,410	61,071	
B-9	Truck crane	80t	Day	13,490	1.000	13,490	87,550	
	Crawler crane	30 - 35t	Day	7,995	1.000	7,995	51,888	
	Crawler crane	40 - 45t	Day	9,699	1.000	9,699	62,947	
B-13	Crawler crane	50 - 55t	Day	14,153	1.000	14,153	91,853	
	Crawler crane	80t	Day	14,375	1.000	14,375	93,294	
B-17	Clamshell	0.8m3	Day	3,500	1.000	3,500	22,715	
B-18	Rough trrain crain	20t	Day	2,933	1.000	2,933	19,035	
B-19	Rough trrain crain	25t	Day	3,833	1.000	3,833	24,876	
	Rough trrain crain	30t	Day	5,000	1.000	5,000	32,450	
	Rough trrain crain	50t	Day	7,733	1.000	7,733	50,187	
B-22	Bulldozer	15t	Day	5,288	1.000	5,288	34,319	
B-23	Bulldozer	21t	Day	6,075	1.000	6,075	39,427	
B-24	Wheel Shovel (Loader)	2.1m3	Day	2,437	1.000	2,437	15,816	
B-25	Dump truck	4t	Day	1,290	1.000	1,290	8,372	
B-26	Dump truck	10t	Day	2,255	1.000	2,255	14,635	
B-27	Truck	4t	Day	1,053	1.000	1,053	6,834	
B-28	Truck	6t	Day	1,463	1.000	1,463	9,495	
B-29	Truck	11t	Day	1,910	1.000	1,910	12,396	
B-30	Truck with crane	4t/2t	Day	2,313	1.000	2,313	15,011	
B-31	Trailer	15t	Day	3,468	1.000	3,468	22,507	
	Trailer	20t	Day	4,258	1.000	4,258	27,634	
B-32	Trailer	30t	Day	4,945	1.000	4,945	32,093	
B-33	Asphalt cutter	D30cm	Day		1.000			
B-34	Compressure	5m3/min	Day		1.000			
B-35	Hummer drill	30kg	Day		1.000			
B-36	Hand breaker	20kg	Day		1.000			
B-37	Plate compactor	60-100kg	Day	596	1.000	596	3,868	
B-38	Tamping rammer	60-100kg	Day	317	1.000	317	2,057	
B-39	Vibratory roller	0.8-1.1t	Day	1,118	1.000	1,118	7,256	
B-40	Vibratory roller	3 - 4t	Day	1,538	1.000	1,538	9,982	
B-41	Vibratory roller	8 - 10t	Day	2,265	1.000	2,265	14,700	
B-42	Pneumatic tire roller	8-20t	Day	2,603	1.000	2,603	16,893	
B-45	Mixer truck	4.4m3	Day	2,580	1.000	2,580	16,744	
B-46	Mixer truck	5m3	Day	2,513	1.000	2,513	16,309	
B-47	Concrete batcher plant	30m3/h	Day	14,138	1.000	14,138	91,756	
	Concrete batcher plant	45m3/h	Day	21,708	1.000	21,708	140,885	
B-48	Cement silo	50t	Day	1,915	1.000	1,915	12,428	
B-49	Concrete pump	40～75m3/h	Day	3,978	1.000	3,978	25,817	
	Concrete pump	90～110m3/h	Day	5,468	1.000	5,468	35,487	
B-50	Motorgrader	W3.2m, 120PS	Day	2,678	1.000	2,678	17,380	
	Asphalt finisher	Width 1.4 - 3.0m	Day	3,353	1.000	3,353	21,761	
B-51	Asphalt finisher	Width 2.4 - 6.0m	Day	4,668	1.000	4,668	30,295	
	Road Roller	10 - 12t	Day	2,323	1.000	2,323	15,076	
	Tire Roller	8 - 20t	Day	2,540	1.000	2,540	16,485	

B. Equipment Hire

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
B-52	Welding Machine	300A	Day	965	1.000	965	6,263	
B-53	Concrete Vibrator	D50mm	Day	420	1.000	420	2,726	
B-54	Submersible Pump	6inch h=10m	Day	683	1.000	683	4,433	
B-55	Submersible Pump	4inch h=15m	Day	824	1.000	824	5,348	
B-56	Submersible Pump	2inch h=30m	Day	1,075	1.000	1,075	6,977	
	Generator	300kva	Day	2,402	1.000	2,402	15,589	
B-58	Generator	200kva	Day	1,774	1.000	1,774	11,513	
B-59	Generator	150kva	Day	1,513	1.000	1,513	9,819	
	Generator	100kva	Day	1,228	1.000	1,228	7,970	
B-60	Generator	75kva	Day	1,128	1.000	1,128	7,321	
	Generator	50kva	Day	1,015	1.000	1,015	6,587	
B-61	Generator	35kva	Day	943	1.000	943	6,120	
B-62	Vibrate Hummer for driving ste	90kw	Day	5,069	1.000	5,069	32,898	
B-63	Vibrate Hummer for driving ste	60kw	Day	2,889	1.000	2,889	18,750	
B-64	Re-bar cutter	D41	Day	830	1.000	830	5,387	
B-65	Re-bar bender	D41	Day	830	1.000	830	5,387	
	Water Tank Truck	10m3	Day	2,099	1.000	2,099	13,623	
	Water jet	14.7MPa、325ℓ/min	Day	692	1.000	692	4,491	
	Reverse Circulation Drill	rotary table, D3,200mm, H200m	Day	300	1.000	300	1,947	
	Hydoraulic Press-fitting and Pul	4 jacks, D1,000mm	Day	300	1.000	300	1,947	

C. Construction Material

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
C-1	Reinforcing bar	φ10	Ton	10,650	1.000	11,317	73,447	※1
C-2	Reinforcing bar	D12 - D16	Ton	10,775	1.000	11,442	74,259	※1
C-3	Reinforcing bar	D18- D25	Ton	10,775	1.000	11,442	74,259	※1
C-4	Reinforcing bar	D29 - D41	Ton	11,488	1.000	12,155	78,886	※1
C-6	H-beam	Size up to 200x200	Ton	15,025	1.000	15,692	101,841	※1
C-7	H-beam	H300x300 and more	Ton	15,650	1.000	16,317	105,897	※1
	Maintenance fee for H-beam		Ton	9,000	1.000	9,000	58,410	
C-8	Steel angle	L50x50	Ton	13,175	1.000	13,175	85,506	
C-9	Steel angle	L75x75	Ton	13,900	1.000	13,900	90,211	
	Channel	C150×75×6.5	Ton	15,025	1.000	15,025	97,512	
	Channel	C200×80×7.5	Ton	15,025	1.000	15,025	97,512	
	Channel	C250×90×9	Ton	15,025	1.000	15,025	97,512	
C-11	Tie-rod (NHT690 2pcs/rod, L=10m)	φ70	Ton	7,000	1.000	7,000	45,430	
	Tie-rod (NHT690 2pcs/rod, L=10m)	φ75	Ton	7,500	1.000	7,500	48,675	
	Tie-rod (NHT690 2pcs/rod, L=10m)	φ80	Ton	8,000	1.000	8,000	51,920	
C-12	Steel wire		Kg	25	1.000	25	162	
C-13	Barbed wire		Kg	22	1.000	22	143	
C-14	Galvanized Gabion box	2x1x1m, 3.9mm wire	pc	1,667	1.000	1,667	10,819	
C-18	Cement (Sulfate Resisting Cement)	type V, 50kg bag	Ton	1,046	1.000	1,233	8,002	※1
C-19	Cement (Nomal Portland Cement)	type I, 50kg bag	Ton	968	1.000	1,155	7,496	※1
C-20	Non shrink cement		kg	4,380	1.000	4,380	28,426	
C-25	Water reducing agent		Lit.	23	1.000	23	149	
C-28	Fine aggregate for concrete		m3	81	1.000	262	1,700	※3
C-29	Coarse aggregate for concrete	25-40mm	m3	163	1.000	353	2,291	※3
C-30	Sand for backfill		m3	61	1.000	67	435	※2
C-31	Crushed stone for pavement		m3	129	1.000	471	3,057	※3
C-32	Cobble	200-400mm	m3	109	1.000	449	2,914	※3
C-33	Timber	50W*50H*4000L	m3	5,400	1.000	5,400	35,046	
C-34	Plywood	1.22x2.44 m T=12mm	m2	193	1.000	193	1,253	
	Plywood	1.22x2.44 m T=18mm	m2	238	1.000	238	1,545	
C-35	Plywood (coating)	1.22x2.44 m T=12mm	m2	218	1.000	218	1,415	
	Plywood (coating)	1.22x2.44 m T=18mm	m2	254	1.000	254	1,648	
	Concrete form oil		ℓ	10	1.000	10	65	
	Sandbag	48×62cm	pc	17	1.000	17	110	
	Sandbag (1 ton)	86×86×120cm	pc	163	1.000	163	1,058	
C-36	Steel plate	1.2m×2.5m, t=22mm	pc	4,893	1.000	4,893	31,756	
C-37	Steel plate	1.5m×3.0m, t=22mm	pc	6,357	1.000	6,357	41,257	
	Checkered steel plate	1.2m×2.5m, t=22mm	pc	4,285	1.000	4,285	27,810	
	Checkered steel plate	1.5m×3.0m, t=22mm	pc	5,770	1.000	5,770	37,447	
C-38	Oil boom	upper 30cm×lower 40cm (from water surface)	m	1,000	1.000	1,000	6,490	
C-40	Oil paint		Lit.	46	1.000	46	299	
C-41	Emulsion paint		Lit.	40	1.000	40	260	
C-42	Acrylics paint		Lit.	48	1.000	48	312	
C-43	Vinyl paint		Lit.	52	1.000	52	337	
C-45	Emulsion putty		Lit.	34	1.000	34	221	
C-46	Oil putty		Lit.	34	1.000	34	221	
C-47	Brick	200x100x60	1000pc	1,033	1.000	1,033	6,704	
C-48	Concrete block	150x200x400	1000pc	5,995	1.000	5,995	38,908	
C-49	Asphalt water proofing sheet		m2	82	1.000	82	532	
	Roof drain	for φ100mm, PVC		440	1.000	440	2,856	
C-50	Polystyrene form	t=50mm	m2	108	1.000	108	701	
C-51	Bitumen		Kg	18	1.000	18	117	
C-52	Common glass	t=4mm	m2	73	1.000	73	474	

C. Construction Material

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
C-53	Glass containing a net	t=6.8mm	m2	190	1.000	190	1,233	
C-54	Stainless steel hinge		pc	138	1.000	138	896	
C-55	Door lock		pc	472	1.000	472	3,063	
C-56	Door closer		pc	1,152	1.000	1,152	7,476	
C-57	Aluminum window	1500x1000	m2	2,568	1.000	2,568	16,666	
C-58	Aluminum louver	1000x500	m2	2,623	1.000	2,623	17,023	
C-59	Steel door	2000x2500	m2	25,867	1.000	25,867	167,877	
C-60	Wooden door	600x2000	pc	3,677	1.000	3,677	23,864	
C-61	Galvanized steel Handrail	H=1.100	m	1,190	1.000	1,190	7,723	
C-62	Steel stairs	W:1.2m x H:10m	t	30,700	1.000	30,700	199,243	
C-63	Guardrail for Bridge (galvanized steel)	H:1.2m	m	2,330	1.000	2,330	15,122	
C-64	Guardrail for Road (galvanized steel)	H:1.1m	m	1,860	1.000	1,860	12,071	
C-65	Guardpipe for Road (galvanized steel)	H:1.1m	m	1,110	1.000	1,110	7,204	
C-66	Polyethylene sheet	t=0.15㎜	m2	22	1.000	22	143	
C-67	Grating (galvanized steel)	T-20	m2	4,140	1.000	4,140	26,869	
C-68	Ceramic tile		m2	162	1.000	162	1,051	
C-69	Terrazzo tile		m2	119	1.000	119	772	
C-70	Marble stone		m2	797	1.000	797	5,173	
C-71	Cement tile	200*200*20	m2	79	1.000	79	513	
C-72	P-Tile	300*300*4mm	m2	166	1.000	166	1,077	
C-73	Gypsum board	t=12	m2	180	1.000	180	1,168	
C-74	Cement board	t=6	m2	137	1.000	137	889	
	Corner bead	t=9mm	m	166	1.000	166	1,077	
	Ceiling access hatch	ㅣㅣ600mm	pc	2,330	1.000	2,330	15,122	
C-77	Nail	55mm	kg	33	1.000	33	214	
C-78	PVC pipe	φ250	m	350	1.000	350	2,272	
C-79	PVC pipe	φ200	m	253	1.000	253	1,642	
C-80	PVC pipe	φ150	m	148	1.000	148	961	
C-81	PVC pipe	φ100	m	98	1.000	98	636	
C-82	PVC pipe	φ 50	m	39	1.000	39	253	
C-83	PVC pipe	φ 25	m	21	1.000	21	136	
C-90	Galvanized steel pipe	25A	m	75	1.000	75	487	
C-91	Galvanized steel pipe	50A	m	140	1.000	140	909	
C-92	Galvanized steel pipe	100A	m	263	1.000	263	1,707	
C-93	Galvanized steel pipe	200A	m	587	1.000	587	3,810	
C-94	Galvanized steel pipe	300A	m	843	1.000	843	5,471	
C-95	Rabber shoe for Bridge	Pad type, t=32mm	m2	96,600	1.000	96,600	626,934	
	Rabber shoe for Bridge	Pad type, t=40mm	m2	118,680	1.000	118,680	770,233	
	Rabber shoe for Bridge	Pad type, t=50mm	m2	151,800	1.000	151,800	985,182	
C-96	Expansion joint for Bridge	steel, ◿=20mm	m2	4,140	1.000	4,140	26,869	
	Expansion joint for Bridge	steel, ◿=35mm	m2	5,520	1.000	5,520	35,825	
	Anchor rod for bridge	fixed, φ32	pc	1,110	1.000	1,110	7,204	
	Anchor rod for bridge	movable, φ32	pc	1,110	1.000	1,110	7,204	
C-135	Dowell bar	φ28, L=700mm	pc	165	1.000	165	1,071	
C-136	Dowell bar cap	φ28	pc	67	1.000	67	435	
C-98	Water stop (Rabber type)	w:230mm	m	153	1.000	153	993	
C-99	Elastic expansionn joint filler	20mm	m2	270	1.000	270	1,752	
C-137	Geotextile	nylon・polyester, t=0.5mm	m2	38	1.000	38	247	
C-100	Electric wire	2mm2-2C	m	11	1.000	11	71	
C-101	Electric wire	2mm2-3C	m	14	1.000	14	91	
C-102	Electric wire	3.5mm2-2C	m	18	1.000	18	117	
C-103	Electric wire	3.5mm2-3C	m	23	1.000	23	149	
C-104	Electric wire	3.5mm2-4C	m	33	1.000	33	214	

C. Construction Material

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
C-105	Electric wire	5.5mm2-2C	m	31	1.000	31	201	
C-106	Electric wire	5.5mm2-3C	m	42	1.000	42	273	
C-107	Electric wire	5.5mm2-4C	m	56	1.000	56	363	
C-108	Electric wire	8mm2-3C	m	65	1.000	65	422	
C-109	Electric wire	14mm2-3C	m	82	1.000	82	532	
C-110	Electric wire	22mm2-3C	m	179	1.000	179	1,162	
C-111	Electric wire	30mm2-3C	m	223	1.000	223	1,447	
C-112	Electric wire	38mm2-3C	m	265	1.000	265	1,720	
C-113	Electric conduit pipe	φ20	m	26	1.000	26	169	
C-114	Electric conduit pipe	φ50	m	42	1.000	42	273	
C-115	Electric conduit pipe	φ100	m	77	1.000	77	500	
C-116	Electric conduit pipe	φ150	m	135	1.000	135	876	
C-117	Switch	AC300V 10A	pc	346	1.000	346	2,246	
C-118	Socket outlet	AC250V 2P-13A	pc	208	1.000	208	1,350	
C-119	Pull box	100x100x100	pc	119	1.000	119	772	
C-120	Breaker	MCB 4P 50AF/30AT	pc	873	1.000	873	5,666	
C-121	Breaker	ELB 2P 50AF/20AT	pc	3,445	1.000	3,445	22,358	
C-122	Power distribution board	MCB 2P 50AF/20AT x14	pc	6,990	1.000	6,990	45,365	
C-123	Fluorescent light (Ceiling type)	20Wx4 (Ceiling)	set	833	1.000	833	5,406	
C-124	Fluorescent light (Ceiling mounted typ	40Wx2 (Ceiling)	set	799	1.000	799	5,186	
C-125	Fluorescent light (Ceiling mounted typ	40Wx1 (Ceiling)	set	465	1.000	465	3,018	
C-126	Fluorescent light (Wall mounted type)	18Wx1 (Wall)	set	450	1.000	450	2,921	
C-127	Incandescent lamp (Ceiling mounted ty	60W*1 (Ceiling)	set	367	1.000	367	2,382	
C-128	Incandescent lamp (Waterproof type)	60W*1 (Wall)	set	565	1.000	565	3,667	
C-129	Ventilation fan	400CMHx14mmAp	set	6,365	1.000	6,365	41,309	
C-130	Ventilation fan	580CMHx7mmAp	set	16,700	1.000	16,700	108,383	
C-131	Air-conditioner	5500kcal/h	set	15,887	1.000	15,887	103,107	
C-132	Washstand		set	3,000	1.000	3,000	19,470	
C-133	Sink cabinet		set	7,500	1.000	7,500	48,675	
C-134	Transformer (3-phase)	200KVA	set	266,459	1.000	266,459	1,729,319	
C-135	Transformer (3-phase)	100KVA	set	211,500	1.000	211,500	1,372,635	
K-001	Caulking material		kg	130	1.000	130	844	
K-002	Hydrated lime		kg	6	1.000	6	39	
K-003	Abrasive paper		sh	8	1.000	8	52	
P-001	Coated steel pipe	6.4mm	m	57	1.000	57	370	
P-002	Coated steel pipe	15.9mm	m	82	1.000	82	532	
P-003	Slice valve	32mm	pc	150	1.000	150	974	
P-004	Gass cock	GC25	pc	5,500	1.000	5,500	35,695	
P-005	Screw cock	GC25	pc	35,000	1.000	35,000	227,150	
P-006	Drain plate	COA100	pc	1,637	1.000	1,637	10,624	
P-007	Western style toilet bowl	Lowtank type	pc	2,000	1.000	2,000	12,980	
P-008	Water faucet		pc	1,375	1.000	1,375	8,924	
P-009	Sewage tank	450x450x600	pc	5,000	1.000	5,000	32,450	
P-010	Valve	40A	pc	300	1.000	300	1,947	
P-012	Soak pit	1200φ x 2,600mm	pc	15,000	1.000	15,000	97,350	
M-002	Ventilation fan (Ceiling)	550CMH x 7mA	pc	4,500	1.000	4,500	29,205	
M-003	Ventilation fan (Wall)	400CMH x 7mA	pc	5,000	1.000	5,000	32,450	
M-004	Fan for pipe	100φ 100 m3/h	pc	1,310	1.000	1,310	8,502	
M-005	Air filter	500x1000x25	pc	600	1.000	600	3,894	
M-006	Air filter	500x1500x25	pc	750	1.000	750	4,868	
M-007	Spiral duct	150φ	pc	819	1.000	819	5,315	
M-008	Bendcap	150φ	pc	1,228	1.000	1,228	7,970	
M-009	Assembling equipment for gas cylinder		set	200	1.000	200	1,298	

C. Construction Material

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
M-010	Thermostat		pc	200	1.000	200	1,298	
E-001	Heat resistance cable	HP 1.2－4C	m	819	1.000	819	5,315	
E-003	Outlet box	square w/coverplate	pc	150	1.000	150	974	
E-004	Outlet box	3P 15A	pc	150	1.000	150	974	
E-005	Cover plate		pc	85	1.000	85	552	
E-006	Distribution board		pc	4,300	1.000	4,300	27,907	
E-007	Firealarm reception board	5-wire circuit	pc	4,300	1.000	4,300	27,907	
E-008	Smoke detector	Light sensing type	pc	550	1.000	550	3,570	
E-009	Heat detector	Constant temperature type	pc	670	1.000	670	4,348	
E-010	General panel	w/lamp,bell	pc	6,000	1.000	6,000	38,940	
E-011	Mercury lamp material		set	150	1.000	150	974	
E-012	Cable	vv3c-5.5	m	101	1.000	101	655	
E-013	Fluorescent light (Ceiling type)	F61WP	pc	230	1.000	230	1,493	
E-014	Flexible pipe	C25	m	10	1.000	10	65	
E-015	Heat resistance cable	HP 1.2mm-5P	m	30	1.000	30	195	
E-016	Conductor	60sq	m	390	1.000	390	2,531	
E-017	Supporting material		pc	5	1.000	5	32	
E-018	Line-connecting terminal	60sq	pc	50	1.000	50	325	
E-019	Grounding rod	14 x1500	pc	1,277	1.000	1,277	8,288	
E-020	Grounding copper plate	1.5t x 900	pc	800	1.000	800	5,192	
E-021	Indication plate		pc	230	1.000	230	1,493	
E-022	Earthing terminal board	1P＋2	pc	990	1.000	990	6,425	
E-023	Vinyl raceway	VE(28)	m	72	1.000	72	467	
E-024	Vinyl electric wire	5.5sq	m	13	1.000	13	84	
E-025	Vinyl electric wire	50sq	m	13	1.000	13	84	
E-026	Conduit	FEP(50)	m	16	1.000	16	104	
E-027	Conduit	CP(31)	m	40	1.000	40	260	
E-028	Normal connecting bend	CP(31)	m	41	1.000	41	266	
E-029	Flexible metal conduit		m	67	1.000	67	435	
E-030	Box connector		pc	35	1.000	35	227	
E-031	Pipe connector		pc	50	1.000	50	325	
E-032	Pull box	300 x 300 x 200	pc	38	1.000	38	247	
E-033	Handhall cap	Φ600	pc	1,250	1.000	1,250	8,113	

※1 including transpotation fee
※2 local price (+10%)
※3 local price (+10%), including transpotation fee

E. Transportation / Customs Clearance

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
E-001	Port discharge fee	General Cargo	F/T	148	1.000	148	961	
E-002	Bond warehouse	First week	F/T/day		1.000			
E-003	Customs clearance	General Cargo	F/T	60	1.000	60	389	
E-004	Transportation cost	General Cargo (Alexan	F/T	667	1.000	667	4,329	
	Transportation cost	General Cargo (Cairo t	F/T	550	1.000	550	3,570	
	Transportation cost	for heavy equipment (C	unit	11,367	1.000	11,367	73,772	
	Transportation cost	for heavy equipment (C	unit	12,600	1.000	12,600	81,774	
	Transportation cost	for heavy equipment (C	unit	15,200	1.000	15,200	98,648	

G-J. Others

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation		Remarks
						LE	Convert (JPY)	
	House rental							
G-01	House rent	3beds	month	6,375	1.000	6,375	41,374	
G-02	Land rent		m2/month	12	1.000	12	78	
	Vehicle							
H-01	Rent a car w/driver, fuel	Sedan	month	15,750	1.000	15,750	102,218	
H-02	Rent a car w/driver, fuel	Pick-up	month	18,749	1.000	18,749	121,681	
H-03	Rent a car w/driver, fuel	4 WD	month	31,397	1.000	31,397	203,767	
H-04	Rent a car w/driver, fuel	Microbus	month	26,963	1.000	26,963	174,990	
	Public Fee							
I-01	Water charge	Connection	lot	19,000	1.000	19,000	123,310	
I-02		Basic charge			1.000			
I-03		Usage fee	m3	12	1.000	12	78	
I-07	Telephone charge	Registration	lot	283	1.000	283	1,837	
I-09		Basic charge		45	1.000	45	292	
I-10		Usage fee	min	2	1.000	2	13	
I-11	Electricity charge	Connection	lot	50,000	1.000	50,000	324,500	
I-12		Basic charge			1.000			
I-13		Usage fee	Kwh	2	1.000	2	13	
I-16	Gasoline		Lit	4.0	1.000	4.0	26	
I-17	Diesel		Lit	2.0	1.000	2.0	13	
I-18	Lubricating oil		Lit	98	1.000	98	636	
I-19	Oxygen		cylinder	2,529	1.000	2,529	16,413	
I-20	Acetylene		cylinder	3,365	1.000	3,365	21,839	
	Temporary facilities							
J-1	Temporary fence w/wire	H=2.0m	m	700	1.000	700	4,543	
J-2	Temporary fence w/sheet	H=2.0m	m	1,083	1.000	1,083	7,029	
J-5	Project signboard w/stand	1.8mx3.6m	set	20,833	1.000	20,833	135,206	
J-6	Project signboard w/stand	0.9mx1.8m	set	8,533	1.000	8,533	55,379	

Personnel Fee (Japan)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation	Page *		Remarks
SV-01	sheet pile operator A	Japanese rigger	day	25,500	1.000	25,500	A	860	×100.%
SV-02	sheet pile operator B	Japanese rigger	day	25,500	1.000	25,500	A	860	×100.%
SV-05	mechanical engineer	Japanese mechanic	day	20,900	1.000	20,900	A	868	×100.%
SV-06	electrical engineer	Japanese electrician	day	23,300	1.000	23,300	A	860	×100.%

* Monthly unit price book published in Japan

A: Construction & Material Cost in Japan

B: Price Data for Construction Cost Estimating

Construction Material Fee (Japan)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
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5	Rate	
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NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation	Page *		remarks
JM-002	water stop	pvc, CF, W=300 t=9mm	m	2,460	1.000	2,214	B	493	×90.%
JM-003	water stop	water-swelling	m	2,110	1.000	1,899	A	385	×90.%
JM-008	styrofoam	density:29	m3	29,100	1.000	26,190	B	475	×90.%
JM-009	steel steps	30SW W=300	nos	2,115	1.000	1,904	B	427	×90.%
JM-010	rubber bearing (pad type)	330×150mm t=40	nos	16,800	1.000	11,760	A		×70.%
JM-011	rubber bearing (pad type)	330×300mm t=40	nos	33,700	1.000	23,590	A		×70.%
JM-012	rubber bearing (pad type)	150×10000mm t=20	nos	155,400	1.000	108,780	A		×70.%
JM-013	rubber bearing (pad type)	300×10000mm t=20	nos	310,800	1.000	217,560	A		×70.%
JM-014	rubber bearing (pad type)	t=30mm	m2	184,500	1.000	166,050	B	329	×90.%
JM-015	corrosion-proof anchor	fixed, φ25, F25D	nos	9,900	1.000	6,930	A		×70.%
JM-016	corrosion-proof anchor	movable, φ25, M25D	nos	11,800	1.000	8,260	A		×70.%
JM-017	packing	for F25D, φ25	nos	1,700	1.000	1,190	A		×70.%
JM-018	packing	for M25D, φ25	nos	4,200	1.000	2,940	A		×70.%
JM-020	expansion joint	brof joint, N II-35	m	62,000	1.000	55,800	A	332	×90.%
JM-022	expansion joint	brof joint, N II-20	m	39,100	1.000	35,190	A	332	×90.%
JM-023	grating	IB, 44×5×3	m2	20,100	1.000	18,090	B	545	×90.%
JM-025	emergency generator	80/100kvA, with panel	nos	8,650,000	1.000	8,650,000	B		
JM-028	geotextile	nylon,polyester t=0.5	m2	690	1.000	621	A	379	×90.%
JM-029	staff gauge	SUS, W=130mm	m	12,000	1.000	10,800	A	89	×90.%

* Monthly unit price book published in Japan

A: Construction & Material Cost in Japan

B: Price Data for Construction Cost Estimating

Construction Steel Material Fee (Japan)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Average (LE)	Escalation Rate	Unit Price for Estimation	Page *		remarks
JS-002	deck plate	T-25	m2	26,000	1.000	23,400	A	795	×90.%
JS-003	bridge railing	1.8m間隔	nos	6,390	1.000	5,751	B	168	×90.%
JS-005	H-beam	H400x400x13x21	t	74,000	1.000	66,600	B	25	×90.%
JS-042	tie-rod (690)	φ46 L=10.0m 2pcs/lod	nos	75,750	1.000	68,175	B	443	×90.%
JS-043	tie-rod (690)	φ46 L=11.0m 2pcs/lod	nos	82,550	1.000	74,295	B	443	×90.%
JS-044	tie-rod (690)	φ46 L=11.5m 2pcs/lod	nos	85,600	1.000	77,040	B	443	×90.%
JS-045	tie-rod (690)	φ46 L=12.0m 2pcs/lod	nos	88,650	1.000	79,785	B	443	×90.%
JS-046	tie-rod (690)	φ46 L=13.0m 2pcs/lod	nos	95,450	1.000	85,905	B	443	×90.%
JS-047	tie-rod (690)	φ46 L=13.5m 2pcs/lod	nos	99,250	1.000	89,325	B	443	×90.%
JS-048	tie-rod (690)	φ46 L=14.0m 2pcs/lod	nos	102,250	1.000	92,025	B	443	×90.%
JS-049	tie-rod (690)	φ42 L=8.5m 2pcs/lod	nos	56,950	1.000	51,255	B	443	×90.%
JS-050	tie-rod (690)	φ42 L=9.0m 2pcs/lod	nos	59,550	1.000	53,595	B	443	×90.%
JS-051	tie-rod (690)	φ42 L=12.0m 2pcs/lod	nos	77,200	1.000	69,480	B	443	×90.%
JS-052	tie-rod (690)	φ32 L=7.5m 2pcs/lod	nos	31,100	1.000	27,990	B	443	×90.%
JS-053	tie-rod (690)	φ32 L=8.0m 2pcs/lod	nos	32,650	1.000	29,385	B	443	×90.%
JS-054	tie-rod (690)	φ32 L=9.0m 2pcs/lod	nos	36,300	1.000	32,670	B	443	×90.%
JS-055	tie-rod (690)	φ25 L=7.5m 2pcs/lod	nos	23,600	1.000	21,240	B	443	×90.%
JS-056	tie-rod (690)	φ75 L=8.9m 2pcs/lod	nos	167,850	1.000	151,065	B	443	×90.%
JS-057	tie-rod (690)	φ75 L=10.0m 2pcs/lod	nos	186,500	1.000	167,850	B	443	×90.%
JS-058	tie-rod (690)	φ32 L=6.8m 2pcs/lod	nos	28,300	1.000	25,470	B	443	×90.%
JS-059	tie-rod (690)	φ32 L=8.0m 2pcs/lod	nos	32,650	1.000	29,385	B	443	×90.%
JS-060	tie-rod (690)	φ28 L=4.5m 2pcs/lod	nos	17,800	1.000	16,020	B	443	×90.%
JS-061	tie-rod (690)	φ28 L=5.5m 2pcs/lod	nos	20,550	1.000	18,495	B	443	×90.%
JS-062	tie-rod (690)	φ28 L=7.6m 2pcs/lod	nos	27,050	1.000	24,345	B	443	×90.%
JS-063	tie-rod (690)	φ28 L=8.5m 2pcs/lod	nos	29,800	1.000	26,820	B	443	×90.%
JS-064	tie-rod (690)	φ28 L=8.8m 2pcs/lod	nos	30,500	1.000	27,450	B	443	×90.%
JS-065	tie-rod (690)	φ28 L=10.0m 2pcs/lod	nos	34,250	1.000	30,825	B	443	×90.%

* Monthly unit price book published in Japan

A: Construction & Material Cost in Japan

B: Price Data for Construction Cost Estimating

Transportation Fee (Japan)

1	as of Estimation	January. 2017
2	Country	ARAB REPUBLIC OF EGYPT
3	Project	THE PROJECT FOR CONSTRUCTION OF THE NEW DIROUT GROUP OF REGULATORS
4	Class	AGRICULTURE
5	Rate	
	1USD=	113.34 JPY
	1LE=	6.49 JPY

NO	Description	Specification	Unit	Class	Average (LE)	Escalation Rate	Unit Price for Estimation	Remarks
FT-001	ocean transportation	from YOKOHAMA to Alexandria	F/T		180.0	1.000	180.00	×100.%
FT-002	ocean transportation	from Ho Chi Minh to Alexandria	F/T		173.3	1.000	173.33	×100.%

APPENDIX E-9

Itemized Construction Cost

Construction Cost divided into each regulator (reuse steel material)

1$= 113.34 JPY

1LE= 6.49 JPY

Item	Detail	Unit	1. Bahr Yusef					2. Ibrahimia					3. Badraman					4. Diroutiah					5. Sahelyia					6. Abo Gabal					Total				
			Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN
A. Civil Works	A-1. Excavation	m3	5,190	0	1,256	0	8,153	13,840	0	3,349	0	21,734	1,030	0	249	0	1,618	1,140	0	276	0	1,792	2,000	0	495	0	3,213	1,510	0	365	0	2,371	24,710	0	5,992	0	38,881
	A-2. Embankment	m3	47,700	0	15,088	0	97,921	30,300	0	7,664	0	49,742	1,050	0	480	0	3,113	930	0	426	0	2,763	1,390	0	613	0	3,975	2,590	0	1,131	0	7,343	83,960	0	25,402	0	164,857
	A-3. Demolition work	m3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	0	65	0	424	127	0	113	0	731	201	0	178	0	1,155
	A-4. Sheet pile bank protection	t	327	389	2,913	3,746	66,757	256	305	2,762	4,092	56,538	12	14	110	0	2,279	11	13	109	0	2,187	38	45	437	844	8,811	78	93	951	764	17,468	722	859	7,282	9,445	154,040
	A-5. Rip rap bank protection	m2	1,202	0	2,900	5,172	23,993	807	0	3,881	9,274	34,464	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,009	0	6,781	14,446	58,457
	A-6. Canal bed protection	m2	1,821	120	1,664	0	24,427	1,826	119	1,661	0	24,232	75	7	84	0	1,394	120	9	117	0	1,756	0	4	17	0	574	0	5	23	0	757	3,842	265	3,566	0	53,140
	A-7. Concrete work for regulators	m3	6,065	0	22,042	285	143,340	6,022	0	21,859	284	142,149	771	0	3,372	0	21,883	988	0	4,221	0	27,394	752	0	3,265	158	21,348	1,441	0	5,819	199	37,966	16,039	0	60,579	926	394,080
	A-8. Pile foundation work	pc	104	0	9,726	0	63,122	88	0	8,341	0	54,131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	192	0	18,067	0	117,253
	A-9. Accessory works	LS	1	0	12,452	7,303	88,113	1	0	8,648	7,353	63,479	1	0	1,995	4,185	17,131	1	0	2,042	4,585	17,834	1	0	363	98	2,450	1	0	848	195	5,701	1	0	26,347	23,719	194,708
	A-10. Electric works	LS	1	0	1,570	11,678	21,864	1	0	800	0	5,194	1	0	233	0	1,509	1	0	267	0	1,730	1	0	683	0	4,435	1	0	1,343	0	8,717	1	0	4,896	11,678	43,449
	A-11. Gate manufactures and works	LS	1	0	5,752	869,123	906,454	1	0	5,703	869,123	906,133	1	0	1,985	0	12,882	1	0	2,639	0	17,125	1	0	2,180	0	14,147	1	0	3,550	0	23,037	1	0	21,808	1,738,247	1,879,778
	A-12. Expense of the machine and facilities	LS	1	109	11,694	26,350	114,562	1	108	11,597	26,131	113,610	1	17	1,785	4,023	17,490	1	21	2,235	5,036	21,894	1	16	1,742	3,924	17,062	1	29	3,097	6,979	30,344	1	299	32,151	72,444	314,962
A Total				618	87,057	923,657	1,558,706		531	76,266	916,257	1,471,406		38	10,293	8,208	79,299		43	12,331	9,620	94,475		66	9,860	5,024	76,439		127	17,242	8,138	134,435		1,422	213,048	1,870,905	3,414,787
B. Temporary works	B-1. Temporary Coffer Dam ※	t	1,593	947	11,847	73,097	257,349	0	0	11,237	73,731	146,658	0	0	0	0	0	0	0	0	0	0	0	0	1,313	1,288	9,809	315	187	1,384	1,317	31,503	1,908	1,134	25,780	149,433	445,319
	B-2. Single Sheet Pile ※	t	259	154	927	1,644	25,125	463	374	2,200	5,249	61,908	107	64	379	838	10,499	0	0	260	838	2,527	0	0	0	0	0	0	0	0	0	0	829	592	3,767	8,569	100,059
	B-3. Temporary bridge ※	t	855	0	2,905	64,897	83,752	197	0	2,859	0	18,556	57	0	423	6,466	9,211	28	0	386	0	2,504	8	0	97	506	1,135	4	0	48	253	566	1,149	0	6,719	72,122	115,724
	B-4. Dewatering	m2	9,040	0	6,119	0	39,714	6,920	0	6,772	0	43,949	-	0	328	0	2,125	-	0	328	0	2,125	-	0	328	0	2,125	-	0	328	0	2,125	15,960	0	14,202	0	92,163
	B-5. Temporary road & preparation	LS	1	0	3,784	0	24,561	1	0	3,660	0	23,753	1	0	979	0	6,354	1	0	1,617	0	10,495	1	0	198	0	1,282	1	0	269	0	1,747	1	0	10,508	0	68,192
	B-6. diversion works	LS	1	0	7,920	0	51,400	1	0	7,790	0	50,559	1	0	0	0	0	1	0	0	0	0	1	0	86	0	555	1	0	80	0	517	1	0	15,876	0	103,031
	B-7. Other temporary works	LS	1	0	12,620	6,224	88,125	1	0	5,427	6,172	41,393	1	0	984	950	7,338	1	0	1,155	1,190	8,684	1	0	719	927	5,594	1	0	1,394	1,649	10,697	1	0	22,299	17,112	161,831
	B-8. Transpotation / Shipment	LS	1	971	6,697	41,254	194,807	1	964	6,646	41,043	193,460	1	131	936	3,873	24,750	1	163	1,172	4,849	30,983	1	127	913	3,779	24,145	1	227	1,625	6,720	42,940	1	2,583	17,990	101,519	511,085
B Total				2,073	52,820	187,115	764,834		1,338	46,591	126,196	580,236		194	4,030	12,128	60,277		163	4,918	6,876	57,318		127	3,653	6,500	44,645		414	5,127	9,939	90,095		4,309	117,144	348,755	1,597,448

1. The cost is including In case of reusing steel materials such as sheet pile and H-beam (Bahr-Yusef → Ibrahimia, Badraman → Diroutiah) (showed by ※)
2. **A-12**, **B-8** and a part of **B-7** can't be divided (for example: rental fee for construction equipment, temporary yard preparation)
3. The cost is including the indirect cost

Item	Detail		Unit	Quantity	10^3USD	10^3LE	10^3YEN	exchange to 10^3YEN
C. Building works	C-1. Control house		LS	1	0	2,670	0	17,328
	C-2. Local contrl house	Bahr Yusef	LS	1	0	408	0	2,645
	C-3. Local contrl house	Ibrahimia	LS	1	0	408	0	2,645
	C-4. Stop log room		LS	1	0	1,105	0	7,169
D. Integrated Water Management System			LS	1	0	42,698	0	277,112
E. Dispute Board			LS	1	407	0	0	46,129

Construction Cost

A. Civil Works	3,414,787	10^3JPY
B. Temporary works	1,597,448	10^3JPY
C. Building works	29,786	10^3JPY
D. Integrated Water Management System	277,112	10^3JPY
E. Dispute Board	46,129	10^3JPY
	5,365,263	10^3JPY

APPENDIX E-10

Evaluation of the quotations of Gate facilities

E-10-1. Evaluation of the quotation of Gate Facilities ---------- E-894

E-10-2. Quotation (A:IHI) ---------- E-898

E-10-3. Quotation (B:MTSC) ---------- E-902

E-10-4. Quotation (C:Houkoku) ---------- E-905

E-10-5. Calculation of Public Construction Cost ---------- E-908

E-10-6. Quotation (Orascom, for small gate) ---------- E-914

E-10-7. Quotation (Energya, for small gate) ---------- E-916

E-10-1. Evaluation of the quotation of Gate Facilities

Large gate facilities

1$= 113.34 YEN

NO	Description	Specification	Quantity	Unit	Quotation (YEN)				(E) Public Construction Cost	Decision (per 1L.S)
					A: IHI	B: MTSC	C: Houkoku	(D) Unit price based on the quotation		
	(Bahr Yusef + Ibrahimia)									
	Gate leaf		2	L.S	421,313,400	492,459,240	417,000,000	443,590,880	187,030,450	157,655,000
	Gate guide		2	L.S	340,270,600	525,882,979	342,000,000	402,717,860	126,030,110	132,187,000
	Hoisting device		2	L.S	1,081,432,000	–	~~5,692,000,000~~	865,145,600	778,196,040	410,835,000
	Remote operation system		2	L.S	277,234,000	–	–	221,787,200	–	110,893,000
	Others		2	L.S		411,024,336	142,000,000			
				total	2,120,250,000	1,429,366,555	6,593,000,000			

*1 The price of Hoisting Device in the "C" is excluded from the comparison, because it is extremely expensive and not realistic.
The unit price of the Hoisting Device is calculated as 0.8 times of the quptation of "A" for the above reason.

*2 Because the price of Remote operation system is not included in the "B" and "C", it is calculated as 0.8 times of the quotation of "A".

Decision of the unit price for Large gate facilities

1. The unit prices of "(D)" calculated based on the quotations (from A to C) are shown in the above table.
2. The public construction costs calculated by Japanese code are shown as "(E)" in the above table.
3. The decision of the unit price is applied as the average of the "(D)" and "(E)".

Small gate facilities

NO	Description	Specification	Quantity	Unit	Quotation (USD)					Decision (per 1L.S)
					A: Energya	B: Orascom				
Badraman										
	Gate Leaf		2	L.S	4,243	66,000				26,400
	Gate Guide			L.S	10,538					
	Hoisting Device			L.S	not included					
Diroutiah										
	Gate Leaf		3	L.S	5,846	99,000				26,400
	Gate Guide			L.S	14,454					
	Hoisting Device			L.S	not included					
Abo Gabal										
	Gate Leaf		4	L.S	9,272	143,000				28,600
	Gate Guide			L.S	21,870					
	Hoisting Device			L.S	not included					
Sahelyia										
	Gate Leaf		2	L.S	5,797	75,500				30,200
	Gate Guide			L.S	13,788					
	Hoisting Device			L.S	not included					

*1 The Hoisting Device is not included in the quotation of "Energya".

*2 The 80% of quotation of "Orascom" is applied for the unit price of the small gate as lump sum.

Stop Logs

NO	Description	Specification	Quantity	Unit	Quotation (USD)					Decision (per 1set)
					A: Energya	B: Orascom				
for Large Gate										
	Type A (6.0m×1.2m)	2 nos per 1 set	2	set	339,095	976,280				135,600
	Type B (6.0m×1.35m)	8 nos per 1 set								
for small Gate										
	Type A (2.0m×0.85m)	2 nos per 1 set	2	set	161,596	491,510				64,600
	Type B (2.0m×0.95m)	7 nos per 1 set								

*1 The unit price of stop log of the quotation of "Orascom" is quite expensive. The price is higher than made in Japan in the basic design.

*2 The 80% of quotation of "Energya" is applied for the unit price of the stop logs.

(for reference) calculation of the lengths of the gate guide

Location	length (m)		
	Upstream	Downstream	Total
Bahr Yusef	58.8	54.8	113.6
Ibrahimia	58.8	54.8	113.6
Badraman	14.4	12.0	26.4
Diroutiah	19.8	16.2	36.0
Abo Gabal	31.2	38.0	69.2
Sahelyia	18.0	23.8	41.8

E-10-2. Quotation (A:IHI)

IHI

February 21, 2017

Sanyu Consultants Inc.
Daiichifuji Bldg. Daikan-cho 35-16
Higash-ku, Nagoya, 461-0002, JAPAN

Attention to: Mr. Yukimasa HASHIGUCHI,
Managing Director, General Manager of International Dept.

Dear Sir,

We, IHI Infrastructure Systems Co., Ltd. (hereinafter referred to as IIS), are herewith pleased to submit our quotation based on your request for proposal received on December 13th 2016 and additional information on February 2nd 2017.

1. Total Project Price:

Item	Contents	Price
1	Expense of domestic fabrication, procurement and transportation to Kobe port for double stage roller gate of BAHR-YUSEF REGULATOR and IBRAHIMIA REGULATOR	¥ 1,843,016,000
2	Expense of domestic procurement and transportation to Kobe port for Remote operation system	¥ 277,234,000
3	Expense of Dispatching Supervisor (1Man/Month)	¥2,200,000

1. Breakdown for Item 1 is attached as Attachment 1"Breakdown for NEW DIROUT GROUP REGULATORS"
2. Tax in Japan is not included

2. Scope:

(1) Expenses for domestic fabrication, procurement and transportation to Kobe port for double stage roller gate of BAHR-YUSEF REGULATOR and IBRAHIMIA REGULATOR.

(2) Expenses for domestic procurement and transportation to Kobe port for Remote operation system for BAHR-YUSEF REGULATOR, IBRAHIMIA REGULATOR and 4 other small regulators.

(3) Expenses for Dispatching Supervisor for installing and Test operation for double stage roller gate for BAHR-YUSEF REGULATOR and IBRAHIMIA REGULATOR.

3. Conditions:

(1) Domestic fabrication, procurement and transportation to Kobe port for double stage roller gate.

- Main steel material is carbon steel, paint spec is epoxy resin + fluorine resin. (Based on Dahab Regulator and Sakoula Regulator)
- Hoist includes Hydraulic Cylinder, Hoist Frame and Hydraulic Piping.
- Additional information of increase of 3.1 ton for Hydraulic Piping weight is applied to the expense.

IHI

(Increase of JPY 10,450,000)

- In accordance with the received specification, power supply facilities is not clarified, power supply facilities are not included. Control panel facilities at secondary side are included.
- Delivery term: Incoterms 2000, FOB Kobe Port.

(2) Domestic procurement and transportation to Kobe port for Remote operation system

- In accordance with the received specification. Remote operation system has modified from the general specification to advanced specification.
- Remote operation system includes only system offered in the specification. Wiring facilities is not included.
- Remote operation system operated not only BAHR-YUSEF REGULATOR and IBRAHIMIA REGULATOR but 4 other small regulators.
- Delivery term: Incoterms 2000, FOB Kobe Port.

(3) Dispatching Supervisor for installing and Test operating for double stage roller gate

- 6 working day per week. Friday is holiday in principle.
- 10 working hours per day. After 48 hours per month, over time expense ¥10,800/ H is required.
- Dispatching period of Supervisor is expected for 16 months for installment, 4.5 months for test operation. It shall be modified after the construction period is fixed.
- Manpower, crane and equipment necessary for site work are not included in the above price.
- Travel expense from Japan to site that are in Egypt (flight tickets, Visa and Insurance etc.) and expenditure in Egypt (Travel expense, accommodation, office equipment, communication cost etc.) are not included in the above price.
- Any and all kind of duties, levies and taxes are not included in the above price.

We trust the above will meet your requirements and satisfaction, and is of your interest.
However, should you have any inquiries for the above, please feel free to contact the undersigned Mr. Akiho ANDO at +81-3-3769-8602 (tel.).

Very truly yours,

Akiho ANDO
General Manager
Overseas Sales Department,
Sales Headquarters

IHI Infrastructure Systems Co., Ltd.

AZUMA BUILDING 17-12, SHIBAURA 3-CHOME, MINATO-KU, TOKYO 108-0023 JAPAN
Tel: +81-3-3769-8602 Fax: +81-3-3769-8607

Attachment1 "Breakdown for NEW DIROUT GROUP REGULATORS"

BAHR-YUSEF REGULATOR

Item	Qty	Weight (t)	Price (Yen)
Gate leaf	1 set	140.72	210,656,700
Gate guide	1 set	132.76	170,135,300
Hoist	1 set	200.62	540,716,000
Remote operation system	1 set	1.00	138,617,000
Total		475.10	1,060,125,000

IBRAHIMIA REGULATOR

Item	Qty	Weight (t)	Price (Yen)
Gate leaf	1 set	140.72	210,656,700
Gate guide	1 set	132.76	170,135,300
Hoist	1 set	200.62	540,716,000
Remote operation system	1 set	1.00	138,617,000
Total		475.10	1,060,125,000

E-10-3. Quotation (B:MTSC)

MTSC MITSUI THANGLONG STEEL CONSTRUCTION CO., LTD

Office & Factory:
Sam Duong, Ninh so, Thuong Tin, Ha Noi, Viet Nam
Tel: 84-4-3686-0112/0113/0803 Fax: 84-4-3686-0107

To: **SANYU CONSULTANTS INC**

Overseas Business Division, Technology Department 4, Engineering Section

4th Floor, Daiichi Fuji Building, 35-16 Higashi ku, Nagoya shi 〒461-0002, Japan

Tel: +81-52-933-7803 Fax: +81-52-933-7851

Attn: Mr. **WAKATSUKI MOTO** E-Mail: moto-wakatsuki@sanyu-con.co.jp

Date of Issue: January 24, 2017
Our Ref. No.: MTS-SAN-EDC-R0

Subject: Project for Re-Construction of Canals at Drayout city - Egypt
Supply of the Fabricated Steel Roller Gates (Two Stage Type)

Dear Sir,

Thank you very much for your request to submit a quotation for Supply of the Fabricated Steel Roller Gates for Re-Construction Project of Canals at Drayout city - Egypt.

We are pleased to submit our quotation as follows:

1. **Volume:**

   341.4 tons of Steel Structure of Roller Gates for Bahr-Yusef Canal and Ibrahimia Canal

2. **Price:**

   341.4 tons x 36,940.00 US$/ton = 12,611,316.00 US$

   (US Dollar Twelve million six hundred eleven thousand three hundred and sixteen only)

   The above Price excludes any Value Added Tax.

3. **Our Scope of Work:**

   (1) Full size drawing.
   (2) Procurement all of steel material.
   (3) Shop Fabrication.
   (4) Inspection.
   (5) Blasting and Coating.
   (6) Delivery FOB at Haiphong Port, Vietnam.

4. **Applicable Documents:**

   RFQ of Sanyu Consultants INC dated Dec. 19, 2016 and it's Reference Data.

5. **Commercial Conditions:**

(1) The above Price excludes any Value Added Tax (VAT) arisen in Vietnam.
(2) The above Price excludes any Price for Produced Parts and Accompanying Equipment.
(3) The above Price excludes any Price for all of Gaskets Rubber and Bolts.
(4) The above price excludes any Costs for Third Party Inspection.
(5) The above price excludes any Costs for all of Welding, Cleaning and Coating Works at Site.
(6) Proposed payment term is:

Advance Payment:	15% of Contract Price.
Progress Payment:	
- Submit the Purchase Order for Steel Material:	40% of Contract Price.
- Completed of Inspection :	30% of Contract Price.
- Delivery at FOT MTSC's Shop:	15% of Contract Price.

(7) This quotation is valid until End of April 2017.

6. **Technical Conditions:**

(1) Steel Material supplied by MTSC is from Taiwan and Vietnam. And the equivalent steel material in accordance with the technical specification or requirement is used.
(2) All of Gates for Balu-Yusef Canal and Ibrahimia Canal shall be divided to 2 blocks because the maximum size for transportation is approximately 2.3m. The site joint method of blocks can chose the site welding.
(3) Welders qualified in accordance with AWS D1.1/A1.5 in previous project are to be engaged in this project
(4) Welding work is to be executed in accordance with AWS D1.1/A1.5.
(5) Non Destructive Testing operators certified in the ASNT Level II is to be engaged for the in-house testing.
(6) Delivery Condition is FOB at Haiphong Port, Vietnam .

7. **Other terms and Conditions** not specified in this quotation shall be discussed and mutually agreed later.

We trust that our above prices are acceptable by you and looking forward to your favorable reply.

Faithfully Yours,

Tsutomu Yamashita
Director General

E-10-4. Quotation (C:Houkoku)

御　見　積　書

見積番号NO.
平成 29 年 2 月 20 日

株式会社三祐コンサルタンツ 殿

下記の通り見積致しましたから
御下命の程御願い申し上げます。

豊国工業株式会社

東京都中央区新川一丁目17番25号
豊国工業株式会社 東京支店
支店長 金谷 将明

金　額 ￥ 別紙参照願います －

品　名 2段式ローラゲートおよび電気・制御設備等一式

見積有効期間： 平成29年9月30日
納　　期： ご協議
受渡場所： 広島港車上渡し
据付工事： 据付指導
電気工事： 含みません
支払条件： 現金決済（日本円100%による決済）

本見積には、消費税は含まれておりません。

承認 金谷　営業 新畑　積算 新畑

種別・品名	規格・寸法	単位	数量	単価	金額
2段式ローラゲートおよび電気・制御設備		式	1		
※ 別 紙 参 照 願 い ま す					

Bahr-Yusef&Ibrahimia Regulator概算工事費

工事名	Bahr-Yusef Regulator	Ibrahimia Regulator		
ゲート形式	鋼製2段式ローラーゲート	鋼製2段式ローラーゲート		
開閉装置	油圧シリンダ式	油圧シリンダ式		
純径間	6.00	6.00		
扉　高	6.55	6.55		
（上段扉高）	3.15	3.15		
（下段扉高）	3.40	3.40		
門　数	4	4		
水密方式	前面3方ゴム水密	前面3方ゴム水密		
操作方式	機側及び遠隔操作	機側及び遠隔操作		
概　算　金　額　（製作、輸送）				
製作費	扉体		¥417,000,000	
	戸当り		¥342,000,000	
	開閉装置		¥5,692,000,000	
	遠方監視室内機器		-	見積辞退
	電源設備　（水門側機側操作盤のみ）		¥113,000,000	
	製作費計		¥6,564,000,000	
輸送費	最寄り港車上渡し（広島港）		¥29,000,000	
	輸送費計		¥29,000,000	
	・契約に使用する言語は日本語、通貨は日本円とします。			
	・検収日は製品引渡時とします。			
	・製品の受け渡しは広島港で、日本国内輸送標準梱包による車上渡しとします。			
工事価格	8門分		¥6,593,000,000	
概　算　金　額　（据付指導）				
据付費	水門据付に伴う技術指導		¥150,000	1日当り
	・据付指導は適切な指示、指導及び助言を行うものであり、据付品質の保証を行うものではございません。			
	・契約に使用する言語は日本語、通貨は日本円とします。			
	・検収日は毎月末とし、毎月の稼働工数による出来高請求と致します。			
	・勤務時間は8:00～17:00とし残業をご指示の場合は、弊社規定の割増賃金をご請求致します。			
	・派遣期間中の休業日（休日）は海外出張期間中のため手当てを支給する必要があることより費用をご請求致します。			
	・現地事務所、事務機器、通信・光熱費等はご提供下さるものと致します。			
	・現地での移動手段はご提供下さるものと致します。			
	・現地での通訳を施工箇所に配置いただけるものと致します。			
	・現地での書類作成は日本語と致します。			
	・現地技術指導に必要な工具、安全防具、手工具はご提供下さるものと致します。			
	・派遣に伴う渡航費用（派遣・帰任・特別休暇等）はご提供下さるものと致します。			
	・派遣に伴う国内旅費（旅費・宿泊・日当）はご請求させて頂きます。			
	・派遣に伴う査証、現地労働許可、住居許可の取得は行って頂けるものとします			
	・派遣に伴う宿泊費はご提供下さるものと致します。			
	・派遣に伴う現地租税公課はご負担頂けるものとします			
	・就業条件は別途協議させて頂きます			
工事価格	1日・人		¥150,000	

E-10-5. Calculation of Public Construction Cost

費　目	名　称	規格・寸法	単位	数量	単　価	金　額　　備　考
概算工事費						
製作原価　Production Cost						1,091,256,600
据付工事原価						
製作原価＋据付工事原価		計				
設計技術費		(製作＋据付)	%			
工事原価		計				
一般管理費			%			
工事価格						

工場製作費								
【上段扉】 Upper gate leaf								
(主要部材)	溝形鋼	SS400	C150×75×9/12.5	kg	232.9	84	19,563	
main items	溶接構造用鋼板	SM400A	PL9	kg	177.7	131	23,278	
	溶接構造用鋼板	SM400A	PL12	kg	1292.6	131	169,330	
	溶接構造用鋼板	SM400A	PL16	kg	463.7	131	60,744	
	溶接構造用鋼板	SM400A	PL19	kg	1109.4	131	145,331	
	ステンレス鋼板	SUS304	PL9	kg	1631.3	360	587,268	
	ステンレス棒鋼	SUS304	φ125	kg	336.1	669	224,850	
	ステンレス鋳鋼	SCS3	φ450	kg	495.2	2, 985	1,478,172	
			小計		5738.9		2,708,536	
(副部材) sub items cost			主要部材費	%	15.5	2,708,536	419,823	
(部品費) accessories cost			主要部材費	%	22.0	2,708,536	595,878	
(製作補助材料費) material cost for main and sub items			主要部材＋副部材費	%	6.5	3,128,359	203,343	
労務費 labor cost				人	125	22,800	2,850,000	
塗装費 painting cost			酸洗い pickling	m^2	49.3	3,500	172,410	
			エポキシ樹脂系 epoxy	m^2	67.0	5,140	344,534	
			計				516,944	
直接製作費計 manufacturing cost			**上段扉 Upper gate leaf**		per gate	**1門計**	**7,295,000**	
				total (8 gates)		**8門計**	**58,360,000**	
【下段扉】 Lower gate leaf								
(主要部材)	溝形鋼	SS400	C200×80×7.5/11	kg	239.9	84	20,151	
main items	溶接構造用鋼板	SM400A	PL12	kg	5020.9	131	657,737	
	溶接構造用鋼板	SM400A	PL16	kg	1202.2	131	157,488	
	溶接構造用鋼板	SM400A	PL19	kg	141.9	131	18,588	
	ステンレス棒鋼	SUS304	φ180	kg	745.5	669	498,739	
	ステンレス鋳鋼	SCS3	φ700	kg	1824.0	2, 985	5,444,640	
			小計		9174.4		6,797,343	
(副部材) sub items cost			主要部材費	%	15.5	6,797,343	1,053,588	
(部品費) accessories cost			主要部材費	%	22.0	6,797,343	1,495,415	
(製作補助材料費) material cost for main and sub items			主要部材＋副部材費	%	6.5	7,850,931	510,311	
労務費 labor cost				人	124	22,800	2,827,200	
塗装費 painting cost			酸洗い pickling	m^2	6.5	3,500	22,610	
			エポキシ樹脂系 epoxy	m^2	145.3	5,140	746,944	
			計				769,554	
直接製作費計 manufacturing cost			**下段扉 Lower gate leaf**		per gate	**1門計**	**13,453,000**	
				total (8 gates)		**8門計**	**107,624,000**	

【戸当金物】Gate guide								
(主要部材)	H形鋼	SS400	H194×150×6/9	kg	311.5	84	26,166	
main items	溶接構造用鋼板	SM400A	PL12	kg	2236.4	131	292,968	
	溶接構造用鋼板	SM400A	PL16	kg	3759.5	131	492,494	
	溶接構造用鋼板	SM400A	PL19	kg	741.4	131	97,123	
	ステンレス鋼板	SUS304	PL9	kg	1468.4	360	528,624	
	ステンレス鋼板	SUS304	PL10	kg	2715.5	562	1,526,111	
	ステンレス鋼板	SUS304N2	PL10	kg	244.3	741	181,026	
	ステンレス鋼板	SUS304N2	PL12	kg	717.9	741	531,963	
	ステンレス鋼板	SUS304N2	PL20	kg	1563.8	741	1,158,775	
			小計		13758.7		4,835,250	
(副部材) sub items cost			主要部材費	%	29.0	4,835,250	1,402,223	
(部品費) accessories cost			主要部材費	%	2.5	4,835,250	120,881	
(製作補助材料費) material cost for main and sub items			主要部材＋副部材費	%	6.5	6,237,473	405,436	
労務費 labor cost				人	290	22,800	6,612,000	
塗装費 painting cost			プライマー primer	m^2	177.1	408	72,273	
			酸洗い pickling	m^2	152.3	3,500	533,085	
			計				605,358	
直接製作費計	manufacturing cost		**戸当金物 Gate guide**		per gate	**1門計**	**13,981,000**	
				total	(8 gates)	**8門計**	**111,848,000**	
【開閉装置】Hoist								
(主要部材)	鋼板	SS400	PL6	kg	118.2	129	15,247	
main items	山形鋼	SS400	L50×50×6	kg	157.2	83	13,047	
	ステンレス鋼板	SUS304	PL10	kg	15.9	562	8,935	
	ステンレス鋼板	SUS304	PL16	kg	16.8	573	9,626	
	ステンレス棒鋼	SUS304	φ350	kg	389.2	741	288,397	
	ステンレス鋼管	SUS304TP	◎150A(Sch20S)	kg	153.6	520	79,872	
	機械構造用炭素鋼	S25C-N	t220	kg	2348.8	175	411,040	
			小計		3199.7		826,164	
(部品費) accessories cost			主要部材費	%	38.0	826,164	313,942	
(製作補助材料費) material cost for main and sub items			主要部材	%	6.5	826,164	53,701	
(機械単体品)	油圧シリンダー hydraulic cylinder		STr7500	基	2	11,000,000	22,000,000	
mechanical	油圧シリンダー hydraulic cylinder		STr7300	基	2	7,000,000	14,000,000	
products	油圧ユニット hydraulic unit			基	1	32,000,000	32,000,000	
	レスキューバルブ rescue valve		MIV611-2R-25FS	基	8	462,000	3,696,000	
	緊急油圧装置 emergency hydraulic device			基	1	4,000,000	4,000,000	
	開度計 opening indicator		メッセンジャーワイヤー式	基	4	1,200,000	4,800,000	
	作動油 oil			ℓ	1700	200	340,000	
			小計				80,836,000	
労務費 labor cost			鋼製付属:D	人	25	22,800	570,000	
塗装費 painting cost			エポキシ樹脂系＋ポリウレタン樹脂系塗装 epoxy + polyurethane	m^2	14.8	4,571	67,833	
			酸洗い pickling	m^2	10.4	3,500	36,470	

			小計				104,303	
直接製作費計	manufacturing cost		開閉装置 Hoist		per gate	1門計	82,704,000	
				total (8 gates)		8門計	661,632,000	
【開閉装置架台】鋼製付属:D Hoist frame								
(主要部材)	山形鋼	SS400	L50×50×6	kg	137.3	83	11,395	
main items	山形鋼	SS400	L75×75×9	kg	284.6	83	23,621	
	溶接構造用鋼板	SM400A	PL10	kg	219.1	131	28,702	
	溶接構造用鋼板	SM400A	PL12	kg	6571.6	131	860,879	
	溶接構造用鋼板	SM400A	PL20	kg	1068.9	131	140,025	
	溶接構造用鋼板	SM400A	PL22	kg	11851.6	131	1,552,559	
	溶接構造用鋼板	SM400A	PL25	kg	1778.0	131	232,918	
	機械構造用炭素鋼	S45C-N	φ24	kg	264.1	175	46,217	
			小計		22175.2		2,896,316	
accessories cost								
(部品費)	六角ナット		M24	個	496	26.4	13,094	
	座金		M24	個	32	11.2	358	
			小計				13,452	
(製作補助材料費)	material cost for main and sub items		主要部材	%	13.0	2,896,316	376,521	
労務費 labor cost			鋼製付属:D	人	59	22,800	1,345,200	
			epoxy + polyurethane					
塗装費 painting cost			エポキシ樹脂系＋ポリウレタン樹脂系塗装	m^2	334.6	4,571	1,529,365	
			小計				1,529,365	
直接製作費計	manufacturing cost		開閉装置架台 Hoist frame	1 set per 4gates		4門一式	6,161,000	
					2 sets	2式	12,322,000	
【油圧配管】鋼製付属:D Hydraulic pipe								
(主要部材)	ステンレス山形鋼	SUS304	L75×75×6	kg	119.4	597	71,281	
main items	ステンレス鋼管	SUS304TP	◎25A(Sch80)	kg	752.0	1, 213	912,176	
			小計		871.4		983,457	
accessories cost								
(部品費)	オールアンカー anchor		M10	個	50	60.0	3,000	
	Uボルト・ナット bolt, nut		25A	個	100	37.0	3,700	
			小計				6,700	
(機器単体)	キューブエルボ cube elbow		25A	個	8	30,100	240,800	
mechanical products	フランジ flange		25A	個	56	4,710	263,760	
			小計				504,560	
(製作補助材料費)	material cost for main and sub items		主要部材	%	13.0	983,457	127,849	
労務費 labor cost			鋼製付属:D	人	13	22,800	296,400	
塗装費 painting cost			酸洗い pickling	m^2	47.3	3,500	165,515	
			小計				165,515	
直接製作費計	manufacturing cost		油圧配管 Hydraulic pipe		per gate	1門計	2,084,000	
				total (8 gates)		8門計	16,672,000	
【直接製作費 】	total of manufacturing cost						968,458,000	

間接労務費	indirect cost for labor		直接労務費	%	75.0	107,935,000	80,951,000	
工場管理費	factory management cost		(労務費＋間接労務費＋塗装費)	%	20.0	209,238,000	41,847,600	
間接製作費計	total of indirect cost						122,798,600	
製作原価	production cost						1,091,256,600	

E-10-6. Quotation (Orascom, for small gate)

		Small regulators				Remarks
Name		**Badraman**	**Diroutiah**	**AboGabal**	**Sahelyia**	
Gate type		Slide gate	Slide gate	Slide gate	Slide gate	
Clear span		2.00m	2.00m	2.00m	2.00m	
Total height		2.65m	2.35m	2.95m	3.55m	
Quantity		2	3	4	2	
Lifting height		3.60m	3.30m	3.90m	4.50m	
Operating speed		0.3m/min	0.3m/min	0.3m/min	0.3m/min	
Hoist type		Electric Actuator	Electric Actuator	Electric Actuator	Electric Actuator	
Seal type		3-side rubber seal	3-side rubber seal	3-side rubber seal	3-side rubber seal	
Material	Main structure	Steel EN 10025 S235 JR	Steel EN 10025 S235 JR	Steel EN 10025 S235 JR	Steel EN 10025 S235 JR	
	Gate guide	SUS304	SUS304	SUS304	SUS304	SS 304
	Bolt& nut	SUS304	SUS304	SUS304	SUS304	SS 304
Estimated Price ($ / Ea.)		**$33,000**	**$33,000**	**$35,750**	**$37,750**	

		Stop logs for small regulators		Stop logs for large regulators		Remarks
		Type A	Type B	Type A	Type B	
Clear span		2.00m	2.00m	6.00m	6.00m	
Unit height		0.85m	0.95m	1.20m	1.35m	
Quantity		2	7	4	16	
Material	Main structure	Steel EN 10025 S235 JR	Steel EN 10025 S235 JR	Steel EN 10025 S235 JR	Steel EN 10025 S235 JR	
	Gate guide	SUS304	SUS304	SUS304	SUS304	SS 304
	Bolt& nut	SUS304	SUS304	SUS304	SUS304	SS 304
Stop Logs Set Price ($ / Ea.)		**$1,700**	**$1,800**	**$4,350**	**$4,550**	
Stop Logs Guide Price ($ / mt.)		**$2,650**	**$2,650**	**$3,900**	**$3,900**	

E-10-7. Quotation (Energya, for small gate)

SANYU consultants INC.

DAIRUT Barrage

Supply & Fabrication of Head Regulator & Stop logs Gates

Date: 10th November, 2016

Ref. No. : ESS-076-11-16-PL-CD

Kind Attn : MR. Kazuma AKIYOSHI

E-mail : kaz-akiyoshi@sanyu-con.co.jp

Dear Sir,

Thank you for giving us the opportunity to submit an offer for the above mentioned subject.

We have a great pleasure to submit herewith our Techno-commercial offer in accordance with the received enquiry documents.

We hope this offer meets your requirements & satisfaction, for any further information and/or clarifications, please do not hesitate to contact the undersigned.

energya Steel Fabrication Co. is very keen to secure the order for this project and look forward to start business with your esteemed organization.

Best regards.

Table of Content

1- Technical Conditions

2- Commercial Conditions

3- BOQ

1. Technical Conditions

1.1. General

- This offer is based on and limited to the followings:
  - Received documents.
  - All what is mentioned in our offer.
  - Our previous experience for similar works.

Any changes to these may/shall have direct impact on the quoted prices and delivery time.

1.2. *energya* Scope of Work:

1.2.1 Engineering

- Preparation of work shop drawings based on your complete detailed drawings.
- Issue of MTO (Material Take Off).

1.2.2 Material

- Supply of Steel material Grade S235JR for Plates of Gates.
- Supply of Stainless material SS304 for Plates of Gates.
- Supply of fabrication consumables material Electrodes according to AWS/EN/DIN.
- All necessary packing material to be suitable for land transportation.

1.2.3 Fabrication & Inspection

- Fabrication of the required items as per your specifications.
- Inspection of the fabricated items in our factory as per Specification & approved ITP as follows:
  - 100% Visual and Dimension check.
  - Ultrasonic Inspection.
  - Dye penetration test.
  - Trial Assembly.

1.2.4 Surface Treatment & Painting

- **Carbon steel surfaces**
  - Sand blasting SA2 ½
  - One coat two component zinc rich primer (Hempadur Zink 17360 or equivalent) Dry film thickness 30 – 40 µm.
  - Three coats Two component, polyamide cured coal tar epoxy paint (Hempadur 15130 or equivalent) Min. dry film thickness 160 µm for each coat.
- **Stainless Steel plates : Pickling & passivation**

1.2.5 Packing

- Marking, normal packing and loading on trucks.

1.2.6 **Shipping Mode**

- Ex-Works, Energya Workshops at 10th of Ramadan City.

1.3. **Excluding items from *energya* Scope of work**

- Any design works.
- Any Supply of material than mentioned above.
- Any supply of for Non-Ferrous material.
- Any Supply of Bolts / Nuts (Stainless Steel or Carbon Steel).
- Any supply of mechanical and electrical parts.
- Any heat treatment.
- Any cost of third party inspection.
- Any erection or site works.
- Radiographic test.
- Supply of any Expansion Bolts, HILTI Bolts or Chemical anchors.
- Unloading at Site.
- Any Delivery to site.

1.4. **SANYU scope of work**

- Providing ***energya*** with the final detailed drawings in one soft copy and one hard copy.

2. Commercial Conditions

2.1. **General**

- Payment will be based on actual weight of shipped items.

2.2. **Prices**

- ***energya*** prices for supply and fabrication will be as per attached BOQ.

2.3. **Taxes & Duties**

- Our price does not include sales tax (13%).

2.4. **Terms of Payment**

- 50% down Payment.
- 50% against progressive dispatch

2.5. **Delivery Schedule**

- Will be mutually agreed to meet your requirements.

2.6. Coming into force for the contract

- The contract shall come into force after fulfilling the followings:
  - Contract or official purchase order award and sign.
  - Down payment release.
  - Receipt of final approved drawings.

Which is later

2.7. Validity

- Our offer will remain valid for two weeks from our offer date and could be extended after getting ***energya's*** official written approval.

Client : SANYU consultants INC. **Ref. no. : ESS-076-11-16-PL-CD**

Project : DAIRUT Barrage **Date 10 November, 2016**

		Small regulators				Remarks
Name		**Badraman**	**Diroutiah**	**AboGabal**	**Sahelyia**	
Gate type		Slide gate	Slide gate	Slide gate	Slide gate	
Clear span		2.00m	2.00m	2.00m	2.00m	
Total height		2.65m	2.35m	2.95m	3.55m	
Quantity		2	3	4	2	
Lifting height		3.60m	3.30m	3.90m	4.50m	
Operating speed		0.3m/min	0.3m/min	0.3m/min	0.3m/min	
Hoist type		Rack gear	Rack gear	Rack gear	Rack gear	
Motor output		0.65kw	0.65kw	1.00kw	1.40kw	
Seal type		3-side rubber seal	3-side rubber seal	3-side rubber seal	3-side rubber seal	
Material	Main structure	SS400	SS400	SS400	SS400	JIS G3101
	Gate guide	SUS304	SUS304	SUS304	SUS304	JIS G4304
	Bolt& nut	SUS304	SUS304	SUS304	SUS304	
Estimated weight	Gate leaf	1694 kg	2320.5 kg	3723.6 kg	2342.8 kg	
	Gate guide	1376 kg	1890.6 kg	2978.8 kg	1784.8 kg	
	Hoist	3388.6 kg	5034.3 kg	8400.4 kg	5257.2 kg	
	Total	6,459	9,245	15,103	9,385	

Fabrication Weight per one gate	SUS304	702.50	642.40	729.00	919.20	
	SS400	848.50	779.40	927.20	1,159.40	
Total Fabrication Weight	SUS304	1,405.00	1,927.20	2,916.00	1,838.40	8,086.60
	SS400	1,697.00	2,338.20	3,708.80	2,318.80	10,062.80
	Total	**3,102.00**	**4,265.40**	**6,624.80**	**4,157.20**	**18,149.40**
Unit Price per KG	SUS304	7.50	7.50	7.50	7.50	
	SS400	2.50	2.50	2.50	2.50	
Total Price (USD)	SUS304	10,538	14,454	21,870	13,788	60,650
	SS400	4,243	5,846	9,272	5,797	25,157
	Total	**14,780**	**20,300**	**31,142**	**19,585**	**85,806.50**

		Stop logs for small regulators		**Stop logs for large regulators**		Remarks
		Type A	**Type B**	**Type A**	**Type B**	
Clear span		2.00m	2.00m	6.00m	6.00m	
Unit height		0.85m	0.95m	1.20m	1.35m	
Quantity		2	7	4	16	
Material	Main structure	SS400	SS400	SS400	SS400	JIS G3101
	Gate guide	SUS304	SUS304	SUS304	SUS304	JIS G4304
	Bolt& nut	SUS304	SUS304	SUS304	SUS304	
Estimated weight	Gate leaf	582.8 kg	2177.7 kg	8,298	35,434	
	Gate guide	9384.4 kg		31522.4 kg		
	Lifting beam	252.5 kg		911.7 kg		
	Total	12,397		76,166		

Fabrication Weight per one set (Gate Leaf A & Gate Leaf B)	SUS304	54	56.3	149.60	155.00	
	SS400	226	243.2	1891.30	2025.00	
Total Fabrication Weight (Gate leaf A & Gate leaf B)	SUS304	108	394	598	2,480	
	SS400	452	1,702	7,565	32,400	
Fabrication Weight per one set (Gate Guide)	SUS304	3,029.00		3376.00		
	SS400	377.40		555.30		
Total Fabrication Weight (Gate Guide)	SUS304	9,087.00		27008.00		
	SS400	1,132.20		4442.40		
Total Fabrication Weight (Lifting Beam)	SUS304	12.40		49.60		
	SS400	226.90		822.20		
Total Fabrication Weight	SUS304	9601.90		30136.00		39,738
	SS400	3,513.50		45229.80		48,743
	Total	13,115.40		75,365.80		88,481
Unit Price per KG	SUS304	7.50		7.50		
	SS400	2.50		2.50		
Total Price (USD)	SUS304	72,014		226,020		298,034
	SS400	8,784		113,075		121,858
	Total	**80,798.0**		**339,094.5**		**419,893**

APPENDIX E-11

Other quotations

E-11-1. Steel Sheet Pile ---------- E-925

E-11-2. Cast-in-place RC Pile ---------- E-946

E-11-3. Barge ---------- E-974

E-11-4. Import clearance and Transportation charges ---------- E-978

E-11-5. Well Point ---------- E-981

E-11-1. Steel Sheet Pile

Calculation of sheet pile unit price

1USD= 113.34 YEN
1LE= 6.49 YEN
1EUR= 121.26 YEN

1. Arcelor Mittal

Type	Grade	weight (t)	Amount (EUR)
PU	S355GP	1,298.95	2,405,000
	S430GP	1,486.80	

- The unit price is same in the "PU" type
- S355GP→S390GP→S430GP: 2 rank up, it means 20 EUR/t×2
- Insulance for ocean transpotation and unloading cost: 15 EUR/t

When the unit price per ton of PU (S355GP) type is "A",

1,298.95×A +1,486.80×(A +20 EUR/t×2) = 2,405,000
A = (2,405,000-40×1,486.8)/(1,298.95+1,486.8)
= 841.97 EUR (=S355GP)

1EUR= 121.26／6.49
= 18.68 LE

841.97+15 = 857.0 EUR
= 916.9 US$ (=S355GP)

2. Arabco

Arabco (S270GP→S355GP) "TKL" type
750+25+15
= 790.00 EUR
= 845.2 US$

3. Calculation of Unit Price

Applied the selection method: Average of the quotations

916.9+845.2= **881.0** US$

01/12/2016

To : Sanyu Consultants Inc.

Mr. : Masanobu Kadowaki - Technical Advisor.

تحية طيبة وبعد ،،،

مرفق طيه عرض اسعار لتوريد ستائر معدنية وقطاعات ومواسير حديدية طبقا للمواصفات والكميات المطلوبة وبيانها كالتالى :-

Material List

Item	Qty /Pcs	Section	Quantity	Unit	Unit price	Total price
		Sheet piles for Permanent Works				
1	628	**Sheet pile TKL 603 equivalent to PU12 (see attached Data sheet)** steel grade S270GP, l = 6 to 10 m, g = 64,2 kg/m, single pile, Material test certificate MTC 3.1 acc. to EN 10204, steel grade and tolerances acc. to EN 10248	333,07	T	750 EUR/T	249802.5 €
2	332	**Sheet pile TKL 605A equivalent to PU 18 (see attached Data sheet)** steel grade S270GP, l = 10 to 14 m, g = 76,5 kg/m, single pile, Material test certificate MTC 3.1 acc. to EN 10204, steel grade and tolerances acc. to EN 10248	271,73	T	750 EUR/T	203797.5 €
3	648	**Sheet pile TKL 606 equivalent to PU 28 (see attached Data sheet)** steel grade S270GP, l = 10 to 12 m, g = 93,9 kg/m, single pile, Material test certificate MTC 3.1 acc. to EN 10204, steel grade and tolerances acc. to EN 10248	629,86	T	750 EUR/T	472395 €
		Sheet piles for Temporary works				

DAMACO BOSCH NISBAU EMO SHURJOINT
SCHNEIDER System Integrator KROHNE MOCOTECH Soft Starter SIEMENS WIKA

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Phone : +202 2415 5388 - +202 2415 5386 - +202 2415 4922 - +202 2415 4923
Fax : +202 2415 5001 P.O.Box : 188 Heliopolis
Stores : 10 th 6 October St. - Shoupra El Khema
Phone : +202 4222 8351 Cairo

الإدارة والمبيعات : ٥ شارع الصومال - الكوربة - مصر الجديدة - القاهرة - مصر
تليفون : ٢٤١٥٥٣٨٨ - ٢٤١٥٥٣٨٦ - ٢٤١٥٤٩٢٢ - ٢٤١٥٤٩٢٣ - ٠٢٠١
فاكس : ٢٤١٥٥٠٠١ - ٠٢٠٢ - ص.ب : ١٨٨ هليوبليس
المخازن : ١٠ شارع ٦ اكتوبر - شبرا الخيمة
تليفون : ٤٢٢٢٨٣٥٤ - ٠٢٠٢ - القاهرة

Item	Qty /Pcs	Section	Quantity	Unit	Unit price	Total price
4	1400	Sheet pile TKL 606 equivalent to GU30N (see attached Data sheet) steel grade S270GP, l = 10 m, g = 93,6 kg/m, single pile, Material test certificate MTC 3.1 acc. to EN 10204, steel grade and tolerances acc. to EN 10248	1310,41	T	750 EUR/T	982807.5 €
		Surcharge for steel grade S355	1	T	25 EUR/T	
					Sum sheet piles	1908802.5
		Steel pipes				
5	108	spirally welded steel pipe SSAW, tubular steel pipe, steel grade S355JR, EN10219, MTC 3.1, Diameter 600 mm, wall thickness 9 mm, in length of 14 m, g = 131,15 kg/m	198,30	T	825 USD/T	163597.5 $
6	84	spirally welded steel pipe SSAW, tubular steel pipe, steel grade S355JR, EN10219, MTC 3.1, Diameter 650 mm, wall thickness 9 mm, in length of 8,5 m, g = 142,25 kg/m	101,56	T	825 USD/T	83787 $
7	96	spirally welded steel pipe SSAW, tubular steel pipe, steel grade S355JR, EN10219, MTC 3.1, Diameter 800 mm, wall thickness 9 mm, in length of 10,0 m, g = 175,53 kg/m	168,51	T	825 USD/T	139020.75 $
8	66	spirally welded steel pipe SSAW, tubular steel pipe, steel grade S355JR, EN10219, MTC 3.1, Diameter 800 mm, wall thickness 12 mm, in length of 8,0 m, g = 233,16 kg/m	123,11	T	825 USD/T	101565.75 $
					Sum piles	487972 $
		Steel H-beams				
9	180	Steel beams Steel beams 200x200x8x12 in steel grade S355 in length of 10 m	89,820	T	675 EUR/T	60628.5 €
10	144	Steel beams Steel beams 250x250x9x14 in steel grade S355 in length of 6 m	63,07	T	675 EUR/T	42572.25 €
11	442	Steel beams Steel beams 300x300x10x15 in steel grade S355 in length of 7 to 12 m	414,22	T	675 EUR/T	279598.5 €
12	240	Steel beams Steel beams 350x350x12x19 in steel grade S355 in length of 10 and 12	356,40	T	675 EUR/T	240570 €

SCHNEIDER System Integrator KRONE SIEMENS WIKA Soft Starter

Item	Qty /Pcs	Section	Quantity	Unit	Unit price	Total price
13	138	Steel beams Steel beams 400x400x13x21 in steel grade S355 in length of 6 and 10 m	158,24		675 EUR/T	1068.12 €
					Sum H-Beams	730181.25 €

DELIVERY TIME: PRODUCTION OF SHEET PILES TO BE AGREED ON, REGULARLY ROLLING 6 TO 7 WEEKS AFTER ORDER, SHIPEMENT ABOUT 8 WEEKS EX WORKS SUBJECT TO AVAILABLE VESSEL

PIPES AND BEAMS READY FOR SHIPMENT WITHIN 60 DAYS AFTER ORDER AND L/C OPENING, ESTIMATED TRANSITION TIME DEPENDING ON AVAILABLE VESSEL SHIPMENT TIME, PROBABLY 45 DAYS

TERMS OF DELIVERY: CFR FREE OUT ALEXANDRIA, EGYPT, TAXES AND DUTIES UNPAID, ALL GOODS NOT PROTECTED AGAINST RUST, NOT BUNDLED, FOR CASE OF UNDIVIDED ORDER, ACCORDING TO INCOTERMS 2010, SUBJECT TO CHANGE

PAYMENT CONDITIONS PAYMENT ON BASIS OF L/C, INVOICING ON THEORETICAL WEIGHT.

VALIDITY OF OFFER 7 Days

نأمل ان يحوز عرض اسعارنا القبول لدى سيادتكم،،

وتفضلوا بقبول وافر الاحترام والتقدير،،،

مدير عام الشركة

المهندس /

عبد المجيد الجوهرى

BAMACO BELSHINA Tyres GRUNDFOS NISBAU EMO SHURJOINT
SCHNEIDER System Integrator KROHNE MOCOTECH Soft Starter SIEMENS WIKA

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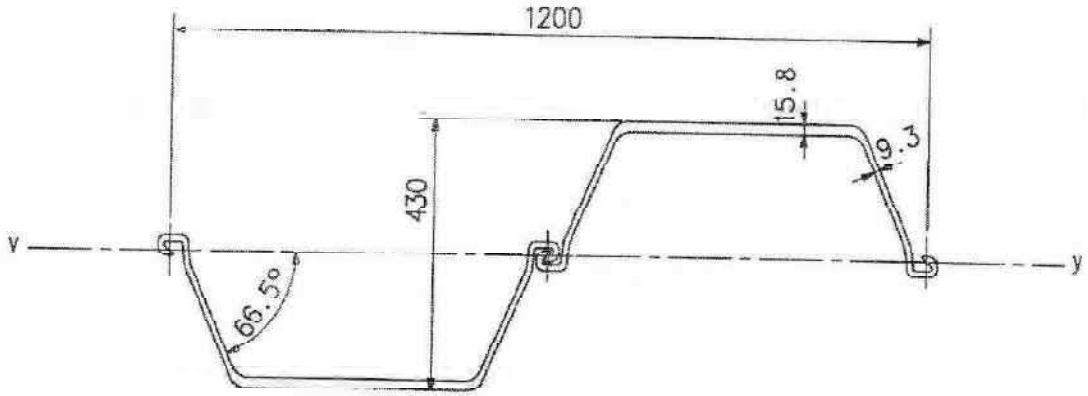
تليفون : ٠٢٠٢ ٢٤١٥٥٣٨٨ - ٠٢٠٢ ٢٤١٥٥٣٨٦ - ٠٢٠٢ ٢٤١٥٤٩٢٢ - ٠٢٠٢ ٢٤١٥٤٩٢٣
فاكس : ٠٢٠٢ ٢٤١٥٥٠٠١ ص.ب : ١٨٨ هليوبليس
المخازن : ١٠ شارع ٦ اكتوبر شبرا الخيمة
تليفون : ٠٢٠٢ ٤٢٢٢٨٣٥٤ القاهرة

Steel Sheet Pile TKL 606



	cross section Area	weight	second moment of inertia	section modulus	circumference	Coating area
	(cm^2)	(kg/m)	(cm^4)	(cm^3)	(cm)	m^2/m
Single Pile	119,60	93,90	8455	517	201,00	1,89
Double Pile	239,20	187,80	64542	3002	377,00	3,66
Triple Pile	358,80	281,70	88220	3370	552,00	5,40
per m wall	199,30	156,50	53785	2502	292,00	2,92

Classification according DIN EN 1993-5:2010		
Steel grade	S 270 GP	S 355 GP
Class	2	2

The section modulus of double piles and per m wall requires locking of the factory-crimped interlocks to accomodate the shear forces.

ThyssenKrupp Bautechnik GmbH
Hollestraße 7a
45143 Essen Germany

Steel Sheet Pile TKL 605 A

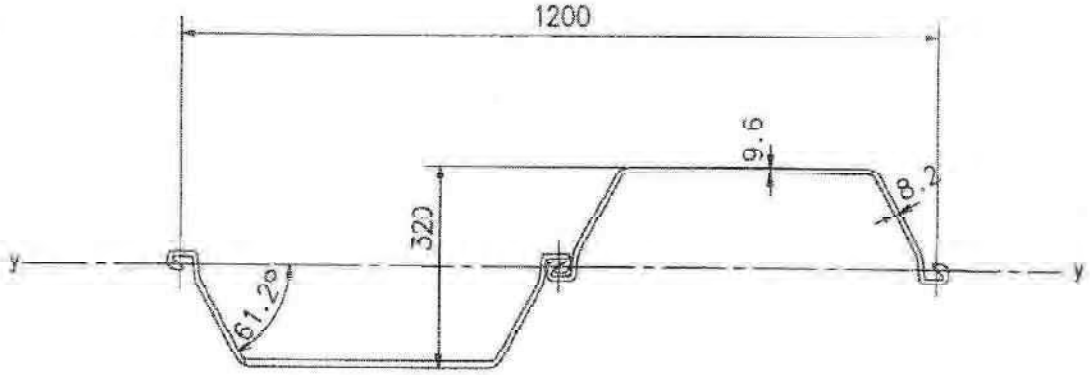
	cross section	weight	second moment of inertia	section modulus
	(cm^2)	(kg/m)	(cm^4)	(cm^3)
per m wall	162,50	127,50	38243	1821

Classification according DIN EN 1993-5:2010		
Steel grade	S 270 GP	S 355 GP
Class	2	3

The section modulus of double piles and per m wall requires locking of the factory-crimped interlocks to accomodate the shear forces.

ThyssenKrupp Bautechnik GmbH
Hollestraße 7a
45143 Essen Germany

Steel Sheet Pile TKL 603



	cross section Area	weight	second moment of inertia	section modulus	circumference	Coating area
	(cm²)	(kg/m)	(cm⁴)	(cm³)	(cm)	m²/m
Single Pile	81,80	64,20	3650	304	185,00	1,70
Double Pile	163,60	128,40	23040	1440	360,00	3,30
Triple Pile	245,40	192,60	31860	1653	495,00	4,85
per m wall	136,30	107,00	19199	1200	263,00	2,63

Classification according DIN EN 1993-5:2010		
Steel grade	S 270 GP	S 355 GP
Class	3	3

The section modulus of double piles and per m wall requires locking of the factory-crimped interlocks to accommodate the shear forces.

ThyssenKrupp Bautechnik GmbH
Hollestraße 7a
45143 Essen Germany

ArcelorMittal Projects Europe
Foundation Solutions

Dayrout Project

Budgetary Commercial Offer

Dayrout Barrage

Our Ref.-No.: 16-20123EG

Heijningen, 08 December 2016

Dear Sirs,

With reference to above mentioned projects, we hereby would like to present our offer, based on our General Conditions of Sale without obligation and/or engagement.

This offer and the related pricing are only valid for a delivery of the full quantity. In case of a partial order the prices will be subject to revision.

ArcelorMittal Projects Europe B.V.
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4794 SL Heijningen
The Netherlands

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www.arcelormittal.com/projects

ABN Amro Bank N.V.; Blaak 555; 3011 GB Rotterdam; IBAN: NL 32 ABNA 0643 0071 64; Swift Code: ABNANL2A

BOQs

Base Solution;

Item	Description	Type	Form	Width Single Pile	W_y	Steel Grade	BMC W_y*fy/1000	Qty.	Pile Length	Tonnage
-	-	-	-	mm	cm^3/m	N/mm²	kNm/m	Pcs	m	to
10.a	Base	PU 12	s.p.	600	1200	**S355GP**	426	**226**	**6.00**	**89.632**
10.b	Base	PU 12	s.p.	600	1200	**S355GP**	426	**110**	**8.00**	**58.168**
10.c	Base	PU 12	s.p.	600	1200	**S355GP**	426	**284**	**10.00**	**187.724**
10.d	Base	PU 12	s.p.	600	1200	**S355GP**	426	**8**	**14.00**	**7.403**
20.a	Base	PU 18	s.p.	600	1800	**S355GP**	639	**274**	**10.00**	**210.706**
20.b	Base	PU 18	s.p.	600	1800	**S355GP**	639	**58**	**14.00**	**62.443**
30.a	Base	PU 28	s.p.	600	2840	**S355GP**	1'008	**534**	**10.00**	**543.612**
30.b	Base	PU 28	s.p.	600	2840	**S355GP**	1'008	**114**	**12.00**	**139.262**
40.a	Base	PU 28 +1	s.p.	600	3000	**S430GP**	1'290	**1'400**	**10.00**	**1'486.800**
								3'008		**2'786**

Alternative-1;

Item	Description	Type	Form	Width Single Pile	W_y	Steel Grade	BMC W_y*fy/1000	Qty.	Pile Length	Tonnage
-	-	-	-	mm	cm^3/m	N/mm²	kNm/m	Pcs	m	to
10.a	Alternative 1	AZ 12 - 770	**d.p.**	770	1245	**S355GP**	442	**89**	**6.00**	**77.537**
10.b	Alternative 1	AZ 12 - 770	**d.p.**	770	1245	**S355GP**	442	**43**	**8.00**	**49.949**
10.c	Alternative 1	AZ 12 - 770	**d.p.**	770	1245	**S355GP**	442	**118**	**10.00**	**171.336**
10.d	Alternative 1	AZ 12 - 770	**d.p.**	770	1245	**S355GP**	442	**4**	**14.00**	**8.131**
20.a	Alternative 1	AZ 18- 800	**d.p.**	800	1840	**S355GP**	653	**103**	**10.00**	**166.242**
20.b	Alternative 1	AZ 18- 800	**d.p.**	800	1840	**S355GP**	653	**22**	**14.00**	**49.711**
30.a	Alternative 1	AZ 28- 750	**d.p.**	750	2810	**S355GP**	998	**214**	**10.00**	**431.424**
30.b	Alternative 1	AZ 28- 750	**d.p.**	750	2810	**S355GP**	998	**46**	**12.00**	**111.283**
40.a	Alternative 1	AZ 30- 750	**d.p.**	750	3005	**S430GP**	1'292	**560**	**10.00**	**1'218.560**
								1'199		**2'284**

Alternative-2;

Item	Description	Type	Form	Width Single Pile	W_y	Steel Grade	BMC W_y*fy/1000	Qty.	Pile Length	Tonnage
-	-	-	-	mm	cm^3/m	N/mm²	kNm/m	Pcs	m	to
10.a	Alternative 2	GU 13N	s.p.	600	1270	**S355GP**	451	**226**	**6.00**	**81.224**
10.b	Alternative 2	GU 13N	s.p.	600	1270	**S355GP**	451	**110**	**8.00**	**52.712**
10.c	Alternative 2	GU 13N	s.p.	600	1270	**S355GP**	451	**284**	**10.00**	**170.116**
10.d	Alternative 2	GU 13N	s.p.	600	1270	**S355GP**	451	**8**	**14.00**	**6.709**
20.a	Alternative 2	GU 18N	s.p.	600	1800	**S355GP**	639	**274**	**10.00**	**210.706**
20.b	Alternative 2	GU 18N	s.p.	600	1800	**S355GP**	639	**58**	**14.00**	**62.443**
30.a	Alternative 2	GU 28N	s.p.	600	2840	**S355GP**	1'008	**534**	**10.00**	**543.612**
30.b	Alternative 2	GU 28N	s.p.	600	2840	**S355GP**	1'008	**114**	**12.00**	**139.262**
40.a	Alternative 2	GU 30N	s.p.	600	3000	**S430GP**	1'290	**1'400**	**10.00**	**1'486.800**
								3'008		**2'754**

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ABN Amro Bank N.V.; Blaak 555; 3011 GB Rotterdam; IBAN: NL 32 ABNA 0643 0071 64; Swift Code: ABNANL2A

Alternative-3;

Item	Description	Type	Form	Width Single Pile	W_y	Steel Grade	BMC W_y*fy/1000	Qty.	Pile Length	Tonnage
-	-	-	-	mm	cm^3/m	N/mm^2	kNm/m	Pcs	m	to
10.a	Alternative 3	AU 14	s.p.	750	1410	**S355GP**	501	**180**	**6.00**	**84.132**
10.b	Alternative 3	AU 14	s.p.	750	1410	**S355GP**	501	**88**	**8.00**	**54.842**
10.c	Alternative 3	AU 14	s.p.	750	1410	**S355GP**	501	**227**	**10.00**	**176.833**
10.d	Alternative 3	AU 14	s.p.	750	1410	**S355GP**	501	**6**	**14.00**	**6.544**
20.a	Alternative 3	AU 18	s.p.	750	1780	**S355GP**	632	**220**	**10.00**	**194.700**
20.b	Alternative 3	AU 18	s.p.	750	1780	**S355GP**	632	**47**	**14.00**	**58.233**
30.a	Alternative 3	AU 25	s.p.	750	2500	**S355GP**	888	**428**	**10.00**	**472.512**
30.b	Alternative 3	AU 25	s.p.	750	2500	**S355GP**	888	**92**	**12.00**	**121.882**
40.a	Alternative 3	GU 30N	s.p.	600	3000	**S430GP**	1'290	**1'400**	**10.00**	**1'486.800**
								2'688		**2'656**

Any changes in the specifications as given above will lead to a revision in pricing.

Technical Specifications: Hot Rolled Sheet Piles

Tolerances Sheet piles according to EN 10248-2 length +/- 200 mm, weight -/+5%.
Grade S355GP and S430GP according to EN 10248-1
Certificates New from production supplied with standard mill test certificate 3.1.
Form Supplied as single piles or double piles as indicated on the tables.
Coating No Coating
Handling Holes Standard handling hole.
Packing Loose (not bundled)

Applicable tolerances as per EN10248 for sheet piles.
No further specials are included such as but not limited to inspection visits and the related cost.

Prices

All Prices below are based on Incoterms CIF FO Alexandria, Egypt. Prices are total prices per package.

Base; 2'405'000.00 EUR
Alternative-1; 1'972'000.00 EUR
Alternative-2; 2'266'000.00 EUR
Alternative-3; 2'234'000.00 EUR

Price Validity

1 week from the date of this document.

General remarks

Price of materials and transport are based on given specification. Possible change of this specification may have implications on the price. Any deviation from this specification will lead to additional costs.

Prices given above are according to today's shipment conditions and subject to change. Furthermore, the prices above are subject to change in means of freight rate and raw material cost at the time of order.

Several lots, vessel option on shipper's discretion.

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Delivery
Material will be delivered by vessel to Egypt. All our prices are based on Incoterms CIF FO Alexandria Port, Egypt.
Delivery in part cargo or full lot on Seller's choice.

Delivery time:
Cargo readiness to be agreed upon receipt of fully workable and confirmed L/C.
Order will be released for production ONLY upon receipt of fully workable L/C by our bank.

Transport cost and conditions
The above mentioned price is based on the maximum delivery lengths as given above and delivery with modern vessel(s) - (number of vessels in Supplier's option) – CIF Free Out Alexandria Port – all costs for berthing and/or unloading are to be paid by the Buyer/Receivers. Buyer/Receivers has to provide docking/berthing quay in due time and ensure sufficient unloading capacities.
Costs due to not possible docking/berthing will be for account of Buyer/Receivers.
Delays will inevitable result in demurrage, in which case such demurrage will have to be paid by the Buyer/Receivers.
Subject to availability of vessel for shipment based on today's conditions and subject to any surcharges, as valid at time of shipment. Mentioned pricing is based on today's political/economic situation. Special conditions at port of destination may apply, all costs and consequences due to demurrage, detention, storage... etc. for buyer's account.

Payment terms
By irrevocable and workable LC 100% payable at sight against shipping documents. No bid bond or performance bond included in our offer.

Quotation period of validity
The prices above are valid for 1 week after this offer's date.

Inspection
No inspection visit is included in our offer.

L/C:

1.	**Total amount:**	***As per one of above in EUR*** (-/+5%)
2.	**Invoicing:**	On theoretical weight.
3.	**Origin/Mill/Manufacturer**:	EU
4.	**Port of Loading:**	Any European Port
5.	**Port of Discharging:**	Alexandria, Egypt
6.	**Partial Shipment:**	Allowed
7.	**Transshipment**:	Not allowed
8.	**Validity:**	1 week from the date of this document.
	Beneficiary:	ArcelorMittal Projects Europe B.V.
	Correspondence address:	Mannesmannweg 5, 4794 SL Heijningen, Postbus 52, 4793 ZH Fijnaart, The Netherlands
	Tel:	+31 88 0083 847
	Fax:	+31 88 0083 700
	Available with	ABN AMRO Bank N.V. Blaak 555 3011 GB Rotterdam The Netherlands SWIFT CODE: ABNANL2A-Please refer to the footer for details.

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Documents:	FULL SET (3/3) OF ORIGINAL ON BOARD OCEAN BILL OF LADING. SIGNED COMMERCIAL INVOICE IN 1 ORIGINAL PLUS 4 COPIES. LEGALIZED INVOICES WILL BE SENT TO BUYER OUTSIDE THE LC. NON-LEGALISED CERTIFICATE OF ORIGIN IN 1 ORIGINAL PLUS 4 COPIES. PACKING LIST / WEIGHT LIST IN 1 ORIGINAL PLUS 2 COPIES. L/C NUMBER WILL BE ON ALL DOCUMENTS ABOVE EXCEPT MILL TEST CERTIFICATE WHICH IS OUTSIDE OF L/C. BENEFICIARY'S CERTIFICATE STATING 1 ORIGINAL COMMERCIAL INVOICE AND ORIGINAL CERTIFICATE OF ORIGIN WILL BE LEGALISED BY EGYPTIAN EMBASSY OR CONSULATE IN BENEFICARY'S COUNTRY AND WILL BE SENT DIRECTLY TO THE APPLICANT ALONG WITH THE EUR1 CERTIFICATE.
9. Charges:	All bank charges in the country of negotiation are for beneficiary's account including reimbursement charges.

Technical assistance

Other than stated inspections and certifications are not included in this offer.

All calculations, drawings and recommendations are part of ArcelorMittal's service to the customer but not part of an engagement by the contract.
Since these services are of no obligation for both contract partners, they are subject to verification by the customer and ArcelorMittal is not under any liability for any errors or mistakes.

Yours sincerely,

ArcelorMittal Projects

Annexes:

1) Delivery Conditions and Tolerances
2) General Conditions of Sale

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Tolerances on shape and dimensions of hot rolled steel sheet piles according to EN 10248
(reduced tolerances on request)

Tolerances	AU, PU, GU	AZ	AS 500	HZM
Mass[1]	± 5%	± 5%	± 5%	±5 %
Length (L)	± 200 mm	± 200 mm	± 200 mm	± 200 mm
Height (h)[2]	h ≤ 200 mm: ± 4 mm h > 200 mm: ± 5 mm	h ≥ 300 mm: ± 7 mm	-	h ≥ 500 mm: ± 7 mm
Thicknesses (t,s)	t, s ≤ 8.5 mm: ± 0.5 mm t, s > 8.5 mm: ± 6%	t, s ≤ 8.5 mm: ± 0.5 mm t, s > 8.5 mm: ± 6%	t > 8.5 mm: ± 6%	t, s ≤ 12.5 mm: −1.0 mm / +2.0 mm t, s > 12.5 mm: −1.5 mm / +2.5 mm
Width single pile (b)	± 2% b	± 2% b	± 2% b	± 2% b
Width double pile (2b)	± 3% (2b)	± 3% (2b)	± 3% (2b)	± 3% (2b)
Straightness (q)	≤ 0.2% L	≤ 0.2% L	≤ 0.2% L	≤ 0.2% L
Ends out of square	± 2% b	± 2% b	± 2% b	± 2% b

[1] From the mass of the total delivery. [2] Of single pile.

Maximum rolling lengths (longer sections available on request)

Section	AZ	AU, PU	GU sp[1]	GU dp[1]	AS 500	HZM	RH / RZ	OMEGA 18	C9 / C14	DELTA 13
Length [m]	31	31	24	22	31	33	24	16	18	17

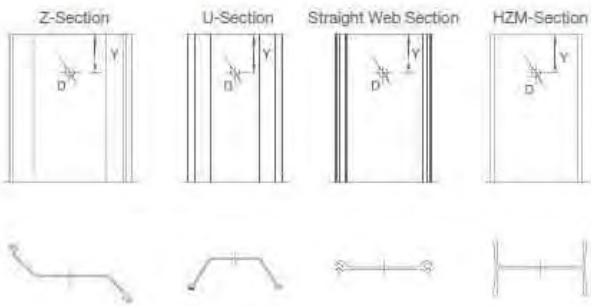
[1] sp = single pile, dp = double pile. Contact us for more details.

Handling holes

Sheet pile sections are normally supplied without handling holes. If requested, they can be provided with handling holes in the centerline of the section. The standard handling hole dimensions are as follows:

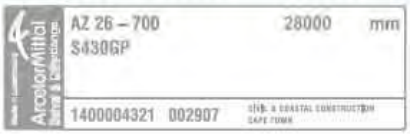
Diameter D [mm]	40	40	50	50	63.5	40
Distance Y [mm]	75	300	200	250	230	150

Diameter D [in]	2.5
Distance Y [in]	9



Markings

The following markings can be supplied on request:
- Colour marks defining section, length and steel grade.
- Adhesive stickers showing the customer's name, destination, order number, type and length of profile and steel grade.



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Steel grades of sheet pile sections

Steel grade EN 10248	Min. yield strength R_{eH} MPa	Min. tensile strength R_m MPa	Min. elongation $L_o=5.65\sqrt{S_o}$ %	Chemical composition (% max)					
				C	Mn	Si	P	S	N
S 240 GP	240	340	26	0.25	–	–	0.055	0.055	0.011
S 270 GP	270	410	24	0.27	–	–	0.055	0.055	0.011
S 320 GP	320	440	23	0.27	1.70	0.60	0.055	0.055	0.011
S 355 GP	355	480	22	0.27	1.70	0.60	0.055	0.055	0.011
S 390 GP	390	490	20	0.27	1.70	0.60	0.050	0.050	0.011
S 430 GP	430	510	19	0.27	1.70	0.60	0.050	0.050	0.011
ArcelorMittal mill specification									
S 460 AP	460	550	17	0.27	1.70	0.60	0.050	0.050	0.011

AMLoCor	Min. yield strength R_{eH} MPa	Min. tensile strength R_m MPa	Min. elongation $L_o=5.65\sqrt{S_o}$ %	Chemical composition (% max)							
				C	Mn	Si	P	S	N	Cr	Al
Blue 320	320	440	23	0.27	1.70	0.60	0.05	0.05	0.011	1.50	0.65
Blue 355	355	480	22	0.27	1.70	0.60	0.05	0.05	0.011	1.50	0.65
Blue 390	390	490	20	0.27	1.70	0.60	0.05	0.05	0.011	1.50	0.65

All the sections can be delivered in steel grades according to EN 10248-1, but not all sections are available in all steel grades. Below table summarizes the current possibilities. Special steel grades like **S 460 AP**, American **ASTM A 572** steel grades, steels with improved corrosion resistance like **AMLoCor** and **ASTM A 690**, or steels with copper addition in accordance with EN 10248 Part 1 Chapter 10.4 can be supplied on request. A modified steel grade A 690 with higher yield strength is also available upon request.

Please contact us for updated information.
Galvanisation has an influence on the chemical composition of the steel and must therefore be specified in the purchase orders.
We strongly recommend informing us of all surface treatment to be applied to the product when placing orders.
ArcelorMittal can also provide steel grades complying with other standards (see table below).

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General conditions of sales

Article 1 General

1.1 For the purpose of these general conditions of Sales, the following terms will have the following meaning:

a. **"Seller"**: ArcelorMittal Projects Europe B.V. or any entity controlled or under the same control as ArcelorMittal Projects Europe B.V.

b. **"Buyer"**: the (prospective) buyer of the products and the Seller's contracting party.

c. **"Quotation"**: the offer made by Seller.

d. **"Order Confirmation"**: the order confirmation issued by the Seller which, together with these Conditions, constitute the entire agreement between Buyer and Seller (hereinafter the **"agreement"**), and supersede, in their entirety, any other conflicting terms and conditions proposed by Buyer.

e. **"Conditions"**: these general conditions of sale of the Seller.

1.2 Commercial terms, used in Quotations, Order Confirmations or otherwise, must be interpreted according to the ICC Incoterms that apply at the time that the agreement is concluded.

1.3 These Conditions shall apply to and are valid for all Quotations, Order Confirmations, agreements and deliveries made by the Seller. Any purchase or other conditions to the contrary are rejected explicitly by the Seller. Unless otherwise agreed in Order Confirmation.

1.4 Quotations, price lists and other communications from the Seller are without obligation. Verbal commitments and arrangements or simple e-mail exchanges made by the Seller's employees will not be binding on the Seller until the Seller has explicitly confirmed these by means of an Order Confirmation.

1.5 The Seller will not be liable for any apparent misstatements in any publication of the Seller of images, sizes, weights, qualities and/or price lists of any nature whatsoever.

Article 2 Deliveries

2.1 The agreed delivery method, including the selected Incoterm, place of delivery and time of delivery/ delivery periods are as laid down in the Order Confirmation. In the event such information is not laid down in the Order Confirmation, then the delivery is Ex-Works.

If the parties agree that the products are to be delivered to their destination, the Seller shall determine the route and means of transportation, as well as the selection of forwarding agents and carriers. The Buyer shall be responsible to provide to the Seller, sufficiently in advance in order to permit Seller to make the necessary arrangements, all appropriate information including (a) marking and shipping instructions when agreed as applicable, (b) import certificates, documents required to obtain necessary government licenses and any other documents prior to their shipment, and (c) Customer's confirmation that it has caused the opening or establishment of a letter of credit if required. If any such instructions, documents or confirmations are not so received or would (in Seller's sole judgment) require unreasonable expense or delay on its part, then Seller may, at its sole discretion and without prejudice as to any other remedies, delay the time of shipment and/or cancel or terminate said agreement.

2.2 The agreed delivery dates are an estimate of the periods within which delivery will take place and are not strict deadlines. If the delivery date is exceeded, the Buyer will therefore not be entitled to termination and/ or compensation, unless the Buyer proves intent or wilful recklessness on

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the Seller's part. Buyer is not entitled to delay or settle the payment of any outstanding invoices in such an event. Unless otherwise agreed in Order Confirmation.

2.3 If for whatever reason, a delivery is delayed beyond the delivery time, the Seller will be entitled to make partial deliveries and henceforth issue separate invoices.

2.4 The Seller reserves the right to change the delivery conditions and the transport means, as appropriate for the correct execution of the order/ agreement.

2.5 Upon delivery of the products to the Buyer under the applicable Incoterm (in accordance with delivery terms under 2.1 above), Buyer bears the risks of damages or loss of the products, regardless of the retention of title under Article 8.1 or any complaint pursuant to Article 5.8.

Article 3 Price and payment

3.1 The Seller will not proceed with full or partial performance of the agreement until the Buyer has been found creditworthy by the Seller or by any third party selected by Seller to assess if the Buyer is creditworthy, as the case may be. If the Buyer is not found creditworthy or if the Seller does not receive a credit insurance limit to cover its receivables under the agreement, the Seller will be entitled to demand advance payment or provision of security from the Buyer. Without credit acceptance, advance payment or the provision of security, the Seller will be entitled to cancel the agreement by means of a mere written statement, without any indemnification being due to the Buyer.

3.2 Payment must be made within 30 (thirty) days of the invoice date. This term is fatal. The Buyer's right to set off any claims against the Seller is explicitly excluded. If the Buyer has or submits a complaint under or in connection with the agreement, such complaint does not entitle the Buyer to suspend payment of the invoice.

3.3 After the expiry of the payment period referred to in Article 3.2, the Buyer is in default of payment, without a demand or notice of default being required, if payment has not been made within that period.

3.4 If the Buyer is in default in accordance with the provisions of the previous paragraph, it will from the due payment date, owe interest on the outstanding amount that will be equivalent to the statutory interest. If the Seller needs to take judicial or extrajudicial action due to the Buyer's failure to pay in good time, all resulting costs will be reimbursed by the Buyer.

Article 4 Termination of the agreement

4.1 The Seller will be entitled to suspend performance of its obligations (in relation to the relevant agreement or another agreement concluded between parties) if and as long as the Buyer does not fully, properly or not in good time fulfil any of its obligations vis-a-vis the Seller that arise from the agreement. If the Buyer is in payment default or does not fulfil any of its obligations under the agreement (including without limitation the failure by Buyer to provide information and documents agreed under the agreement such as those listed in Article 2.1 above), the Seller will be entitled to terminate the agreement with immediate effect in writing without being obliged to compensate the Buyer for any loss on its part, without prejudice to any rights that Seller may claim for its eventual prejudice.

4.2 Cancellation by the Buyer of a concluded agreement is not possible, except with the Seller's prior written consent. If the Seller agrees to the cancellation, the Buyer will pay to the Seller a compensation of at least 25% of the total sum that the Buyer should have paid to the Seller under the agreement, without prejudice to the Seller's right to have a full compensation in the event Seller suffer losses or damages arising out of such cancellation.

4.3 Any agreement concluded between Buyer and Seller cannot be (partly) dissolved by Buyer.

Article 5 Warranty complaints and obligations of the Seller

5.1 Without prejudice to Article 5.3, it is precised that any products delivered by Seller to Buyer are delivered as is, unless otherwise agreed upon in the Order Confirmation. Buyer shall be solely responsible for any security checks and measures in order to verify safe use, application and/or implementation of the products.

5.2 All products sold and delivered are subject to the normally accepted tolerances as to dimensions, quantities and weight. Quality requirements or quality specifications of items to be delivered by the Seller must be agreed on explicitly. Minor and/or normally acceptable deviations and differences, such as in colour, size, weight or finish, which are customary in the industry or cannot be avoided technically, do not constitute grounds for submitting a complaint and will not render the products non-conform.

5.3 The Seller's warranty for products does not extend beyond the quality specifications mutually and expressly agreed in writing in the agreement. In addition, the Seller assumes no obligation or liability for any technical advice furnished before and/or during the use of products, whether provided verbally or in writing or by way of trials. Furthermore, the Seller does not guarantee and will never be deemed to have guaranteed or warranted that the item bought is suitable for the purpose for which the Buyer wishes to process, treat, use or have third parties use the products. Overall, the Seller is not informed about (all) such purpose(s) and the Buyer has the sole responsibility to perform a proper due diligence in order to determine whether the products are indeed suitable.

5.4 Any preliminary samples, prototypes, example products and/or models provided or shown by Seller

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to Buyer, are provided or shown as an indication. Any deviation or difference with the final products cannot constitute ground for non-conformity.

5.5 The Buyer cannot rely upon a warranty if:

a. the Buyer has exposed the products to abnormal circumstances or treated them carelessly or incompetently;

b. the Buyer has stored the products for a period longer than normal and it is likely that a loss of quality has occurred as a result.

5.6 The Buyer must inspect the delivered items for non-conformity immediately upon delivery. Any complaints must be submitted to the Seller in writing within five (5) working days of the delivery date. After the expiry of the above period, the delivered items will be regarded as being in accordance with the agreement and as having been accepted irrevocably and unconditionally by the Buyer. The Buyer must report hidden defects in writing within ten (10) working days of their discovery, but within six months at the latest after delivery. Any legal action must be brought within one year of the complaint being made in good time, at the risk of such a claim lapsing.

5.7 The Buyer must keep the non-conforming products at the Seller's disposal at its own risk. If the Seller is not given the opportunity within ten working days of submission of a complaint within the meaning of Article 5.6 to investigate the complaint, the Buyer cannot rely upon non-conformity.

5.8 In any event, the Buyer must fulfil its obligation of mitigation of damages and is not entitled to delay or settle the payment of any outstanding invoices. If it has been established that products are non-conforming to the specifications agreed in the agreement and a complaint has been submitted in that respect within the specified time, the Seller will be exclusively obliged, at its sole discretion, either (i) to repair or replace or reimburse the non-conforming products, or provide additional parts, within a reasonable period of time but only for those portions of products proven to have failed to meet in product respect the agreed specifications at the time of shipment from the seller's facility, or, (ii) if it is not reasonably possible in the Seller's opinion, or if the price has not already been paid by Buyer, to reduce such price accordingly or dissolve the agreement, to the exclusion of any other remedy.

Article 6 Liability

6.1 The total liability of the Seller for any damage or loss sustained by the Buyer or any third party in relation to the agreement shall not exceed and will be limited to the compensation of direct damage or loss up to at most, one of the following maximum amounts:

(i) up to the invoiced value of the defective or damaged Goods of the relevant agreement at the most: if the claim/dispute relates to defective or damaged goods pursuant to clause 5 ; OR

(ii) up to 100% of the value of the relevant agreement at the most if, and only if, the claim/dispute does not relate to defective or damaged goods.

In no event will the total liability of Seller exceed the above limits.

Notwithstanding the above, the Seller will in any case not be liable to the Buyer or to any other person for any processing expenses, loss of use of any works or products, loss of production or productivity, loss of any contract or opportunity of contract, loss of revenue, loss of profit, loss of goodwill, or other financial loss or expense, whatsoever, whether direct or indirect. In addition, the Seller will in any case not be liable to the Buyer or any other person for any consequential loss or indirect damage or loss suffered by Buyer or by any other person whatsoever in connection with the agreement.

6.2 The foregoing limitation of liability in 6.1 is a condition of sale of the products at the price agreed in the agreement and shall apply in any event whatsoever. The limitation will apply in full unless the relevant damage or loss is due to an intentional act or gross negligence on the part of the Seller.

6.3 If the agreement concerns products that the Seller obtains/ obtained from third parties, the Seller's responsibility and/or liability vis-à-vis the Buyer will be limited to the scope of the responsibility and/or liability of the Seller's supplier or third parties engaged by the Seller vis-à-vis the Seller, provided however that such responsibility will not in any event exceed the cap defined in Article 6.1. This provision only applies at the election of the Seller.

6.4 For avoidance of doubt, in the event the agreement contains a liquidated damages clause, such clause shall be the sole remedy of the Buyer in relation to the concerned delay to the exclusion of any other remedies whatsoever (unless the relevant damage or loss is due to an intentional act or gross negligence on the part of the Seller).

6.5 The provisions of this Article also apply in favour of all legal entities or natural persons that the Seller engages for the performance of the agreement.

6.6 To the extent that the Buyer or its representatives must enter the Seller's premises after having obtained the Seller's prior written consent, they do so at their own risk.

6.7 The above exonerations shall be without prejudice to any statutory compulsory provisions regarding Seller's liability.

6.8 Buyer waives the right to annul the Order Confirmation under Article 6:228 Dutch Civil Code.

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Article 7 Force majeure

Delivery dates if agreed are approximate. If the Seller cannot fulfil its obligations under the agreement due to a situation of force majeure, Seller shall not be liable for any consequence resulting in whole or in part from such situation and will be entitled to such additional time to perform as may be reasonably necessary. In any such event, Seller shall also be entitled to apportion its production among its customers in such manner as it may deem equitable. In the event that delivery becomes impossible or unreasonable as a result of such an impediment, the Seller shall be entitled to withdraw from the Agreement.

Force majeure includes, but is not limited to:

a. operational breakdown or interruption of operations of any nature whatsoever, regardless of their cause;

b. delayed or late delivery by one or more of the Seller's suppliers or by a third party;

c. transport problems or transport impediments of any nature whatsoever that complicate or impede transport to the Seller's company or from the Seller's company to the Buyer;

d. import and export limitations of any nature whatsoever;

e. war (whether or not declared), strike, labour conflict, accident, fire, flood, Acts of God, laws, regulations, orders or acts of any governmental agency or body.

In addition to the events listed in (a) to (e) above which shall always constitute force majeure, it is precised that force majeure will also includes other causes provided the latter are beyond the reasonable control of Seller, or rendering performance by Seller impracticable due to the occurrence of a contingency the non-occurrence of which was a basic assumption on which the Order Confirmation was issued.

This provision shall apply, mutatis mutandis, to the Buyer, being clarified however that neither party shall be relieved in any way from any monetary obligations to pay on the dates specified under this agreement, if the delivery of the products corresponding to such monetary obligations shall have been implemented prior to the event of the force majeure in accordance with the terms and conditions herein contained.

Article 8 Retention of title

8.1 All delivered products remain the Seller's property until the Buyer has fulfilled all of its obligations arising from or related to the agreement by which the Seller has undertaken to deliver, including claims relating to penalties, interest and costs. Until that time, the Buyer is obliged to keep the items delivered by the Seller separated from other items, clearly marked as the Seller's property, and to take out and maintain proper insurance in respect of those items.

8.2 If the Buyer fails to fulfil any obligation pursuant to paragraph 1 of this Article vis-à-vis the Seller, or if there is reasonable ground to fear that the Buyer will not fulfil the stated obligations, the Seller will be entitled, without notice of default, to take immediate possession of the delivered items, regardless of their location. The costs of repossession will be payable by the Buyer.

8.3 As long as the above claims have not been satisfied, the Buyer will not be entitled to dispose of the items concerned or to create a right of pledge or non-possessory pledge in respect of those items. Buyer may not make such product permanently component of a (new) object beforehand either.

8.4 In the event Seller intends to take possession of the delivered items as mentioned in clause 8.2, Buyer will permit and allow Seller or its designated third parties access to the premises of Buyer and more in particular to all the buildings and rooms in which such items are stored, at all times. Buyer shall cooperate with Seller or the third party appointed by Seller so that such taking of possession can be carried out in the optimum conditions, it being agreed that Seller shall strive not to interfere unreasonably with Buyer's business activities.

8.5 In the event that bankruptcy of Buyer is filed or declared, Buyer will immediately upon his appointment inform the curator (in charge of allocating the insolvency assets) and all other relevant parties about the retention of title under clause 8.1.

8.6 When the Buyer has fulfilled all of its obligations vis-à-vis the Seller as referred to in paragraph 1 of this Article, the Seller will provide the Buyer with the ownership of the delivered items subject to a possible Seller's right of pledge with respect to other claims that the Seller has against the Buyer. On demand, the Buyer will cooperate with the Seller in actions required within that scope. Such possible right of pledge is hereby expressly accepted by Buyer.

8.7 The Buyer has the obligation to take out liability insurance that covers among other things, full or partial damage, loss or theft of the delivered items. The Buyer is obliged to provide the Seller with a copy of the relevant insurance policy on demand. In general, Buyer will be obliged to take good care of the delivered items, in any case until the ownership has been transferred and any possible right of pledge has lapsed.

Article 9 Other provisions

9.1 If one or more provisions of these Conditions are invalid, in violation of the law or unenforceable, such will not affect the validity of the other provisions. The Buyer and the Seller will negotiate by mutual consent a new provision to replace the invalid or unenforceable provision that will, to the extent possible, be in line with the purport of the invalid or unenforceable provision.

9.2 If the provisions of these Conditions and the agreement conflict, the provisions of the agreement will prevail.

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9.3 All additions, changes and further arrangements to the agreement and/or these Conditions will only be valid if they have been agreed on in writing.

9.4 To the extent that these Conditions have also been drawn up in other language such as Dutch, this English language version will always be decisive and prevail in the event of any differences.

9.5 Buyer shall not assign or delegate any or all of its duties or rights hereunder without the prior written consent of Seller.

Article 10 Non-Disclosure – Proprietary rights

10.1 All proprietary confidential information of the Seller, including the Seller's business, know how, specifications, procedures (such as quality procedures), technical or commercial information, pricing/costs information disclosed to Buyer within the framework or in connection with the agreement is proprietary to Seller and shall be held in confidence by Buyer, shall only be used by Buyer exclusively in connection with the agreement, and shall not be used for any other purposes or disclosed to third parties without Seller's prior written consent. Buyer shall be liable for any loss to Seller or commercial gain by others from unauthorized use of confidential information occasioned by Buyer's failure to comply with this provision.

10.2 Any rights of ownership and any intellectual property rights (e.g. patent rights, trade marks, copyrights etc.) in any designs, drawings, samples and documents disclosed by the Seller to the Buyer in connection with an agreement remain with the Seller.

Article 11 Applicable law and disputes

11.1 All agreements with the Seller are governed exclusively by Dutch law, with the exception of the reference provisions under Dutch international private law. The provisions of the United Nations Convention on international purchase agreements for movable property (Vienna Sales Convention) are expressly excluded and do not apply, neither do any existing or future international regulations on the purchase of movable tangible property whose effect can be excluded by the parties.

11.2 All disputes that may arise between the parties will be settled exclusively by the competent Dutch Court of Rotterdam.

Article 12 Compliance with Law & ArcelorMittal Policies

12.1 Compliance with Law

The Buyer must comply, and must ensure that its directors, officers, employees, and any person acting for it or on behalf of it such as agents, brokers, distributors, sub-contractors, joint venture partner ("Personnel") comply, with all applicable Laws, including those concerning corruption, money-laundering, payment of bribes, tax evasion and economic sanctions. In particular:

12.1.1 Trade Sanctions:

The Buyer represents and warrants that he and/or the Personnel are familiar with and will comply with any applicable trade sanctions laws. The Buyer shall ensure that as a result of, or in connection with, the agreement:

(i) no products, services or technology will be provided (in whatever form, by way of sale, lease, processing or otherwise) in breach of such laws

(ii) the products, services or technology are not directly or indirectly intended or might not be possibly intended for a country on which sanctions are imposed in respect of these products, services or technology, or in respect of what they would be used for or the sector in which they would be used or that would otherwise be in conflict with applicable sanction laws,

(iii) no persons or entities that would have been listed on official sanctions lists under applicable trade sanctions laws are involved or could benefit from the agreement.

- The Buyer further represents and warrants that the products will not be used, or directly or indirectly sold, supplied or transferred for use in, any activity related to, or in connection with Iran's nuclear, military or ballistic missile programs sector, including but not limited to the acquisition or development of:

(a) Chemical, biological, nuclear or other "mass destruction" weapons or related technologies or

(b) Conventional weapons or

(c) Ballistic missiles.

- The Buyer further represents and warrants that no products, services or technology will be provided to any person, or for any use, in Crimea or Sevastopol.

- The Seller may terminate the agreement - without notice and without any liability towards the Buyer - if the Buyer has acted in breach of the above trade sanctions provisions or has breached the afore-mentioned representations and warranties - without prejudice to any claims by the Seller for damages suffered as a result of such violation for which the Buyer shall hold the Seller harmless - or if the performance of the agreement otherwise violates or is likely to violate any applicable trade sanctions laws.

- The Buyer shall include these representations and warranties by way of a perpetual clause in any subsequent contracts under which the goods are disposed of.

12.1.2 Corruption:

The Buyer represents and warrants that, in connection with the agreement or the business resulting therefrom: (i) it is knowledgeable about Anti-Corruption Laws (i.e. all anti-corruption/bribery laws including but not limited to the United States Foreign Corrupt Practices Act and the UK Bribery Act as amended from time to time) applicable to

ArcelorMittal Projects Europe B.V.
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The Netherlands

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this agreement and will comply with all such laws and (ii) neither it nor its Personnel has paid, offered or authorised or will make, offer or authorise any payment (including facilitation payments), gift, promise or other advantage or inducement to or for the use or benefit of a government official or a private person.

The Buyer further represents and warrants that neither it nor the Personnel is (i) an official or employee of the relevant country's government or of any other governmental agency or department (ii) a political party, an official or employee of a political party or a candidate for political office, (iii) a person acting in an official capacity for a government, (iv) an official or director, officer or employee of a company wholly or partially controlled by a government of a political party, (v) an official, officer or employee of a public international organisation or (vi) an immediate family member of any of the foregoing (all together referred to as "Government Official"). If any of the foregoing becomes a Government Official, the Buyer shall promptly disclose any such appointment to Seller and such appointment may result in the termination of this agreement at ArcelorMittal's discretion.

12.2 Fraud: The Buyer must take all necessary steps in accordance with good industry practice, to prevent fraudulent activities, in relation to the agreement, by the Buyer or its Personnel.

12.3 Indemnity, Liability and Termination: The Seller may postpone or withhold the execution and/or terminate the agreement - without notice and without any liability towards the Buyer - if the Buyer or a Personnel has acted in breach of this Article 12 or has breached the representations and warranties in this Article- without prejudice to any claims by the Seller for damages suffered as a result of such violation.

The Buyer shall indemnify, defend, and hold harmless the Seller and its affiliates, directors, officers, employees, affiliates and associated companies and their personnel, from and against all liabilities, losses, damages, injuries, costs, expenses, actions, proceedings, claims, demands, fines and penalties arising out of the Buyer's breach of its obligations, representations, warranties or undertakings in this Article 12.

Nothing in this Article 12 limits or excludes any obligation or liability imposed by Law on the Buyer or its Personnel and/or the directors, officers, employees, contractors, sub-contractors, suppliers or agents of its Personnel.

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June 2016

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E-11-2. Cast-in-place RC Pile

DELTA FOUNDATIONS CO.
شركة الدلتا للأساسات

Date: 9/11/2016

To : **M/S. Sanyu Consultants INC.**
Project : **Assiut Regulator**
Subject : **Quotation for Bored Piles**
Sr. No of quotation: 062/11/2016-rev.00

Dear Sir,

Regarding the above mentioned project and subject, we are pleased to submit our quotation for Bored piles as follow:

Sr.	Item	Unit	Qty	Unit Rate (LE)	Total
1	Mobilization & Demobilization the required equipment.	LS	1	250,000 (Only two hundred and fifty thousand EGP)	250,000
1	**Execution only**, Reinforced Concrete piles Bored Piles – case (1) – Dia. 80cm with Length 12.8 m , No. of piles= 90 pile	LM	1152	950 (Only Nine hundred and fifty EGP).	1,094,400
2	**Execution only**, Reinforced Concrete piles Bored Piles– case (2) – Dia. 80cm with Length 14.3 m , No. of piles= 90 pile	LM	1287	950 (Only Nine hundred and fifty EGP).	1,222,650
3	**Execution only**, Reinforced Concrete piles Bored Piles – case (3) – Dia. 90cm with Length 15.3 m , No. of piles= 72 pile	LM	1101.6	1300 (Only one thousand and three hundred EGP)	1,432,080
4	**Execution only**, Reinforced Concrete piles Bored Piles – case (4) – Dia. 90cm with Length 11.3 m , No. of piles= 90 pile	LM	1017	1300 (Only one thousand and three hundred EGP)	1,322,100
5	**Execution only**, Reinforced Concrete piles Bored Piles – case (5) – Dia. 100cm with Length 12.8 m , No. of piles= 72 pile	LM	921.6	1200 (Only one thousand and two hundred EGP)	1,105,920

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Sr.	Item	Unit	Qty	Unit Rate (LE)	Total
6	**Execution only**, Reinforced Concrete piles Bored Piles – case (6) – Dia. 100cm with Length 13.8 m , No. of piles= 72 pile & length 8.8 m , No. of piles = 32 pile	LM	1275.2	1200 (Only one thousand and two hundred EGP)	1,530,240
7	**Execution only**, Reinforced Concrete piles Bored Piles – case (7) – Dia. 110cm with Length 13.3 m , No. of piles= 72 pile & length 8.3 m , No. of piles = 32 pile	LM	1223.2	1450 (Only one thousand and four hundred and fifty EGP)	1,773,640
8	**Execution only**, Reinforced Concrete piles Bored Piles– case (8) – Dia. 110cm with Length 14.3 m , No. of piles= 56 pile & length 7.3 m , No. of piles = 32 pile.	LM	1034.4	1450 (Only one thousand and four hundred and fifty EGP)	1,499,880
9	**Execution only**, Reinforced Concrete piles Bored Piles– case (9) – Dia. 120cm with Length 14.8 m , No. of piles= 56 pile & length 7.8 m , No. of piles = 28 pile.	LM	1047.2	1600 (Only one thousand and six hundred EGP)	1,675,520
10	**Execution only**, Reinforced Concrete piles Bored Piles– case (10) – Dia. 120cm with Length 12.3 m , No. of piles= 56 pile & length 7.3 m , No. of piles = 28 pile.	LM	893.2	1600 (Only one thousand and six hundred EGP)	1,429,120
11	Pile Loading test on Non-working pile with (working load = 5000 KN) and (test load = 10,000 KN).	test	1	600,000 (Only six hundred thousand EGP)	Rate only
12	Pile Loading test on Non-working pile with (working load = 10,000 KN) and (test load = 20,000 KN).	test	1	1,350,000 (Only one million, three hundred and fifty thousand EGP)	Rate only

Sr.	Item	Unit	Qty	Unit Rate (LE)	Total
13	Pile Loading test on Non-working pile with (working load = 15,000 KN) and (test load = 30,000 KN).	test	1	2,000,000 (Only two million EGP)	Rate only
14	Pile Loading test on working pile with (working load = 5000 KN) and (test load = 7500 KN).	test	1	450,000 (Only four hundred and fifty thousand EGP)	Rate only
15	Pile Loading test on working pile with (working load = 10,000 KN) and (test load = 15,000 KN).	test	1	850,000 (Only eight hundred and fifty thousand EGP)	Rate only
16	Pile Loading test on working pile with (working load = 15,000 KN) and (test load = 22,500 KN).	test	1	1,500,000 (Only one million and five hundred thousand EGP)	Rate only
17	Performing Pile Integrity test (PIT) on 25% of total No. of piles.	test	1	200 (Only two hundred EGP)	Rate only
18	Pile Head Demolishing.	pile	1	800 (Only eight hundred EGP)	Rate only
19	Site Disposal.	m3	1	60 (Only Sixty EGP)	Rate only
	Total (LE)				**14,335,550**

- **Financial Terms:**

1	**30%** advance payment should be paid to Delta upon contract.
2	**Half -Monthly invoices** should be paid to Delta in one week.
3	95% of the invoice amount is to be paid within 15 days from submitting, retention of 5% of invoice amount is to be paid along with the final invoice.
4	Any delay in Delta payments is added to the project duration and gives Delta the right to stop the work without and responsibility on Delta.
5	Prices **exclude** all taxes and value added taxes.
6	Prices **exclude** site excavation and dewatering if needed.
7	The quantities are estimated & final payment will be according to the executed quantities.
8	Any stoppage for Delta due to any reasons related to first party; **A twenty thousand** Egyptian Pounds should be paid to Delta as a daily Penalty for each rig machine including its staff.
9	Validity of quotation is 30 days from date.

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DELTA FOUNDATIONS CO.
شركة الدلتا للأساسات

1- Sanyu Consultants INC. Responsibilities:

1	Site handover free of all above & underground serves (Cables, Pipes, Culverts, and ext.). The employer will provide drawing including all underground services. Any diversion requested will be the owner responsibility without any extra charge or deduction from our paid.
2	Prepare the site for machines maneuver by placing compacted 30 cm of hard soil if needed, one meter above ground water table, as per Delta requirements.
3	Provide electrical source (380v, 50H, 100 KVA) &sweet water for work without stop and all free of charge.
4	Issue all work permits for Delta crew and equipment.
5	Supply the required concrete and steel reinforcement for the piles.
6	Excavation works, around the piles and Dewatering if needed.

2- DELTA Responsibility:

1	Surveying work required for piling.
2	Provide the required equipments & crew to complete the work.
3	Fabricate & Lowering the steel cages inside the boreholes.
4	Pile Head demolishing.
5	Performing load tests on working & non-working piles and PIT.

Hoping our quotation meet your satisfaction.

Best Regards,
Eng. Alaa Beshir
General Manager

A.Be

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CONCRETE
Contracting Company

كونكريت
شـركــة للمــقــاولات

١٥ نوفمبر ٢٠١٦

الموضوع : عرض أسعار الخوازيق الحاملة للأقطار المختلفة

لمشروع مجموعة منظمات الرى بديروط – أسيوط

عناية السيد المهندس / ماسانوبو كادوواكى MASANOBU KADOWAKI

المدير الفنى – مدمجة سانيو الأستشارية SANYU CONSULTANTS INC.

تحية طيبة وبعد

بالإشارة إلى الموضوع عاليه نتشرف بإرفاق عرضنا لأسعار الأقطار المختلفة بالأعداد و الأطوال المحددة بمعرفة سيادتكم كالآتى:

١- الخوازيق المزمع استخدامها طراز Bored Piles خوازيق تفريغ .

٢- يسلم الينا الموقع مستوياً وجافاً وخاليا من العوائق الظاهرة والمدفونة وبه المنحدرات اللآزمة لنزول وصعود الماكينات بسهولة ويسر .

٣- هذا العرض يسرى لمدة إسبوعين اى حتى ٣٠ نوفمبر ٢٠١٦ نظراً للتغيرات الطارئة والسريعة فى أسعار الخامات والخدمات.

راجين أن ينال عرضنا قبول سيادتكم ونحن رهن لأية أستفسارات

وتفضلوا بقبول فائق الاحترام

شركة كونكريت للأساست الميكانيكية.

مهندس / مختـار منيب.

We have the honor to attach our quotation for different size and nos. of RC piles as following conditions:
1-All piles are Bored pile method
2-The site will handed to us free from any obsticals (seen or barred such as utilities, foundations, ...), leveled and enough bearing capacity for moving our equipment.
3-Validity up to November 30, 2016 due to unstability of the market

٣٣ ب شارع رمسيس - عمارة معروف شقة ٤٦ ت : ٢٥٧٨٠٢٤١ - ٢٥٧٧٠٠٣٦ - فاكس : ٢٥٧٨٠٢٤٠
33 B, Ramsis Street, Maarouf Bldg. Flat 46 Tel. : 25780241-25770036 Fax. :(202) 25780240
www.concrete-eg.com E-mail : info@concrete-eg.com

Concrete Co. Offer :

15 nov. 2016

No.	Site	Pile Dia. (mm)	Cross Section Area (m2)	Pile Length (m)	No of Piles	Mob & Demob Cost (EGP)	Driling&pouring Cost (EGP)	Concret Volume (M3)	Concrete Cost (EGP)	Re-Bar (Cage) Cost (EGP)	Load Test	Total	
1	Ibrahimia	800	0.5024	12.8	90	150,000.0	1,382,400.0	665.6	665,579.5	745,449.1	150,000.0	3,093,429	6,227,135.3
	Bahr Yusef		0.5024	14.3	90	150,000.0	1,544,400.0	678.9	678,918.2	760,388.4	-	3,133,707	
2	Ibrahimia	900	0.63585	15.3	72	150,000.0	1,762,560.0	735.5	735,475.0	823,732.0	170,000.0	3,641,767	6,960,130.9
	Bahr Yusef		0.63585	11.3	90	150,000.0	1,728,900.0	679.0	678,992.4	760,471.5	-	3,318,364	
3	Ibrahimia	1000	0.785	12.8	72	110,000.0	1,843,200.0	759.6	759,628.8	850,784.3	200,000.0	3,763,613	8,846,790.3
	Bahr Yusef		0.785	13.8	72	110,000.0	1,987,200.0	819.0	818,974.8	917,251.8	-	3,833,427	
			0.785	8.8	32	110,000.0	647,680.0	232.1	232,108.8	259,961.9	-	1,249,751	
4	Ibrahimia	1100	0.94985	14.3	56	90,000.0	2,202,200.0	798.7	798,671.9	894,512.5	240,000.0	4,225,384	11,656,672.9
			0.94985	7.3	32	90,000.0	677,440.0	233.0	232,979.2	260,936.7	-	1,261,356	
	Bahr Yusef		0.94985	13.3	72	90,000.0	2,633,400.0	955.1	955,055.2	1,069,661.8	-	4,748,117	
			0.94985	8.3	32	90,000.0	770,240.0	264.9	264,894.2	296,681.5	-	1,421,816	
5	Ibrahimia	1200	1.1304	12.3	56	92,000.0	2,066,400.0	817.6	817,550.5	915,656.6	270,000.0	4,161,607	11,387,183.3
			1.1304	7.3	28	92,000.0	674,520.0	242.6	242,606.4	271,719.2	-	1,280,846	
	Bahr Yusef		1.1304	14.8	56	92,000.0	2,486,400.0	983.7	983,719.3	1,101,765.6	-	4,663,885	
			1.1304	7.3	28	92,000.0	674,520.0	242.6	242,606.4	271,719.2	-	1,280,846	

AHMAED METAWO (for pilling foundation)

Dears;

Following is our estimationfor the construction of the Continuous Flight Auger cast in place Concrete pile.

Please note that this quotation is valied up to December 15, 2016.

Item	Unit	Q'ty	Unit Price EGP	Total Price EGP
Pile Construction: dia 800mm (~~72 Nos. 15.3 m & 90 Nos. 11.3m length~~) 90 Nos 12,8 m, 90 Nos 14,3 m				
1- **Mobilization:**				
Mobilization, set up of piling equipment at site and demob. after completion	L.S	1	175,000	175,000
2- **Construction Work:**				
Excavation	m	2,119	1,500	3,177,900
Concrete work (supply & pouring)	m3	1,420	1,050	1,491,000
Re-bar work (supply & fabrication)	ton	107.7	14,500	1,562,035
Load Ttest	L.S	1	165,000	165,000
Total				6,570,935

Remarks:

1- Our price based on your request quantity, diameters and construction method.

2- Fabrication of reinfored steel cage based on Egyption Code.

3- Payment conditions:

a. 50% total amount in advance

b. Weekly payment based on site progress.

4 Our price for construction only for drilling pile, pour concrete, fabricat steel cage

شركة
أحمد عطاوة أحمد

Eng. KHLED A. Soliman

AHMAED METAWO (for pilling foundation)

Dears;

Following is our estimationfor the construction of the boared pile concrete pile:

Please note that this quotation is valied up to December 15, 2016.

Item	Unit	Q'ty	Unit Price EGP	Total Price EGP
Pile Construction: dia 900mm (~~90 Nos. 12.8 m & 90 Nos. 14.3~~ 72 Nos 15,3m, 90 Nos 11,3m length)				
1- Mobilization:				
Mobilization, set up of piling equipment at site and demob. after completion	L.S	1	200,000	200,000
2- Construction & Load test:				
Excavation	m	2,439	1,800	4,390,200
Concrete work (supply & pouring)	m3	1,350	1,050	1,417,500
Re-bar work (supply & fabrication)	ton	98.0	14,500	1,421,410
Load Ttest	L.S	1	180,000	180,000
Total				7,609,110

Remarks:

1- Our price based on your request quantity, diameters and construction method.

2- Fabrication of reinfored steel cage based on Egyption Code.

3- Payment conditions:

a. 50% total amount in advance

b. Weekly payment based on site progress.

4 Our price for construction only for drilling pile, pour concrete, fabricat steel cage

شركة
احمد محمد متاوع احمد

KHALED A. SOLIMAN

AHMAED METAWO (for pilling foundation)

Dears;

Following is our estimationfor the construction of the boared pile concrete pile:

Please note that this quotation is valied up to December 15, 2016.

Item	Unit	Q'ty	Unit Price EGP	Total Price EGP
Pile Construction: dia 1000mm (72 Nos. 12.8 m, 72 Nos. 13.8 m and 32 Nos. 8.8 m length)				
1- Mobilization:				
Mobilization, set up of piling equipment at site and demob. after completion	L.S	1	225,000	225,000
2- Construction Work:				
Excavation	m	2,197	1,950	4,283,760
Concrete work (supply & pouring)	m3	1,820	1,050	1,911,000
Re-bar work (supply & fabrication)	ton	138.0	14,500	2,000,406
a. Load Ttest	L.S	1	200,000	200,000
Total				8,620,166

Remarks:

1- Our price based on your request quantity, diameters and construction method.

2- Fabrication of reinfored steel cage based on Egyption Code.

3- Payment conditions:

a. 50% total amount in advance

b. Weekly payment based on site progress.

4 Our price for construction only for drilling pile, pour concrete, fabricat steel cage

شركة
أحمد عبد الجواد أحمد
لأعمال الإنشاءات

Eng. KHALED .A. SOLIMAN

KH

AHMAED METAWO (for pilling foundation)

Dears;

Following is our estimationfor the construction of the boared pile concrete pile:

Please note that this quotation is valied up to December 15, 2016.

Item	Unit	Q'ty	Unit Price EGP	Total Price EGP
Pile Construction: dia 1100mm (56 Nos. 14.3 m, 32 Nos. 7.3 m, 72 Nos. 13.3 m and 32 Nos. 8.8m length)				
1- **Mobilization:**				
Mobilization, set up of piling equipment at site and demob. after completion	L.S	1	300,000	300,000
2- **Construction Work:**				
Excavation	m	2,258	2,550	5,756,880
Concrete work (supply & pouring)	m3	2,260	1,050	2,373,000
Re-bar work (supply & fabrication)	ton	171.6	14,500	2,487,875
a. Load Ttest	L.S	1	225,000	225,000
Total				11,142,755

Remarks:

1- Our price based on your request quantity, diameters and construction method.

2- Fabrication of reinfored steel cage based on Egyption Code.

3- Payment conditions:

a. 50% total amount in advance

b. Weekly payment based on site progress.

4 Our price for construction only for drilling pile, pour concrete, fabricat steel cage

شركة
أحمد محمد متاوع أحمد
لأعمال الأساسات

Eng. KHALED A. SOLIMAN

KH

AHMAED METAWO (for pilling foundation)

Dears;

Following is our estimationfor the construction of the boared pile concrete pile:

Please note that this quotation is valied up to December 15, 2016.

Item	Unit	Q'ty	Unit Price EGP	Total Price EGP
Pile Construction: dia 1100mm (56 Nos. 12.3 m, 28 Nos. 7.3 m, 56 Nos. 14.8 m and 28 Nos. 7.3m length)				
1- Mobilization:				
Mobilization, set up of piling equipment at site and demob. after completion	L.S	1	300,000	300,000
2- Construction Work:				
Excavation	m	1,926	3,000	5,779,200
Concrete work (supply & pouring)	m3	2,300	1,050	2,415,000
Re-bar work (supply & fabrication)	ton	174.1	14,500	2,525,125
a. Load Ttest	L.S	1	250,000	250,000
Total				11,269,325

Remarks:

1- Our price based on your request quantity, diameters and construction method.

2- Fabrication of reinfored steel cage based on Egyption Code.

3- Payment conditions:

a. 50% total amount in advance

b. Weekly payment based on site progress.

4 Our price for construction only for drilling pile, pour concrete, fabricat steel cage

شركة
أحمد محمد متاوع أحمد
للأعمال الإنشائية

Eng. KHALED A. SOLIMAN

KH

Our Ref: SAN-6545-SOF-001
Date: 07/12/2016

SANYU CONSULTANT

Subject: Dayrut Regulator

Dear Sir,

With reference to your invitation, we have the pleasure to present our offer according to the prices and conditions stated below:

I) Scope of work:

- Execution of bored piles and driven sheet piles.
- The rates and prices listed in the attached Bill of Quantities are for work as described in this offer. Should any variation of the works or soil conditions prevail, and our rates prices found to be no longer applicable, new rates and prices shall be agreed upon before the varied work begins.
- Meanwhile, the total amount of work will be calculated according to the final quantities of work executed on site according to the rates shown in the attached bill of quantities.
- The length of piles invoiced is measured from the tip elevation to the working platform.

II) Method of execution:

1. BORED PILE (ON SHORE):

1. Pile position shall be set out by means of surveying instruments.
2. Our drilling machine setting out shall be performed by centering the excavation tool into the temporary casing and the Kelly bar will be vertically positioned.
3. The first 3 meters shall be drilled with oversized auger and then 4 meters temporary casing shall be installed The casing diameter will be 5-10 cm larger than the pile diameter.
4. The pile will be excavated using different types of tools (augers and buckets) according to the nature and consistency of the soil. The excavation will be performed using bentonite slurry as drilling fluid which will be pumped from the mixed bentonite storage tank always keeping a positive head (1-2m above the water table) to keep the hole opened. Any bentonite slurry loss due to seepage will be immediately compensated.
5. The drilling operation will proceed to the design depth. The last one or two meters of the pile will be drilled using cleaning bucket which also clean the tip of the pile prior to placing the reinforcement cage and the concreting operation.

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تليفون : ٣٧٤٨٥١٩٩ - ٣٧٤٨٨١٦٤ - ٣٧٤٩٢٢٧٦ (+٢٠٢)
: ٣٣٣٦٨٨٩١ (+٢٠٢)
فاكس : ٣٧٤٨٦٢٥٣ (+٢٠٢)

6. By means of a service crane the reinforcement cage will be lowered into the pile. The minimum clear distance between the reinforcing bars should be 100mm to ensure that the concrete will flow outwards from the center of the cage to fill the pile shaft completely. On the other hand (75 mm) concrete spacers will be fixed to the cage to maintain concrete cover as well as to center the cage in the hole.
7. The cage will be anchored to the steel casing to prevent it from rising up during casting concrete. This will be done by welding the hook bars to the top of the casing.
8. The cage will be in accordance with the final drawings and project specification.
9. The reinforcement steel bars will be weldable steel in accordance with ASTM A706 weldable steel.
10. Lowering of the steel cage will be followed by the installation of (8-10) inches diameter tremie pipe. The tremie pipe is placed by means of a service crane to approximately 300mm above the base of the pile, and a steel plate is placed at the tremie hopper before the concrete is discharged, then will be pulled out by means of a rope without any interruption to concrete supply just before the hopper is full. The length of the tremie will be reduced as the concrete is being placed. The lower end of the tremie pipe remains submerged in concrete throughout the process and the drilling fluid is displaced upwards by the concrete forming the pile shaft. The concrete used shall be in accordance with project specification having 20-23cm slump.
11. The temporary casing will be withdrawn from the ground immediately after the completion of concreting, (before concrete setting) and after cutting the suspended reinforcement cage.

2. SHEET PILES

1. In-site fabricated guide frame (template) controlled by surveyors will be set up on two levels to adjust positions, verticality and alignment of the proposed driven sheet piles.
2. Sheet piles will be pitched first in the guide frame (template) and then driven using hydraulic vibrator hummer.
3. Sheet piles will be driven in agreed sequence to comply with the general requirements.
4. The sheet piles will be driven to the required design tip elevation or to a sensible refusal whichever is earlier.

III) Conditions:

We require you to provide us with the following items – at your own expense – on site during the piling operation:

1. A working platform that is firm, dry and well compacted with a dolomite layer Min. 25 cm to sustain our heavy equipment. Also it is very important that the working platform be higher than the reinforced steel level by at least 25 cm to insure free maneuvering of our heavy equipment between executed piles.

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: ٣٣٣٦٨٨٩١ (+٢٠٢)
فاكس : ٣٧٤٨٦٢٥٣ (+٢٠٢)

2. Suitable site access and suitable area for loading, erecting and unloading equipment.
3. Official bench marks.
4. Site protection. (If required).
5. Necessary permits to allow our work to proceed day and night (24 hours/day) including any kind of permits required to facilitate our works.
6. Enough space at the work area to set up our equipment, offices and bentonite tanks as follows:-
   a. Bentonite Tanks : 75m x 20m
   b. Excavated Material Stock Pile Area : 100m x 40m
7. Supporting, disconnecting or diverting the existing utilities (water pipes, gas pipes, electric cables, telephone cables ... etc.)
8. **Water source and a continuous source of electricity (Consumption at your own expense).**
9. **Concrete for 24 hours at the location of each pile including the waste.**
10. **Weldable Steel for the site work shop including the waste with rates that allow the execution according to the time schedule.**
11. **Supply and delivery of all sheet piles in accordance with the specification.**

IV) Prices:

Our Prices are based on:

1. Transport equipment to the site once. In case of transporting equipment back to the site the equipment is mobilized by you without any cost.
2. Add a bonus of 100% on the Pile price per liner meter in the case of drilling in the rocky soil, limestone or broken Rock.

Our Prices do not include:

1. Any soil investigation.
2. Any excavation of the site of the project.
3. Excavation work around the piles for Pile head trimming.
4. Transporting output of drilling.
5. Pile head trimming.
6. Supply and execution of plain concrete for footing.
7. Integrity sonic test.
8. Dynamic and sonic coring test.
9. **Sales tax on contracting, decennial liability insurance and additional value.**

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: ٣٣٣٦٨٨٩١ (+٢٠٢)
فاكس : ٣٧٤٨٦٢٥٣ (+٢٠٢)

Our offer is dependent on:

1. Site visit.
2. **National or state statute and currency exchange rate fluctuations.**

- ***This offer is valid for one month***

V) Schedule:

- We will complete the piling works according to the amount of work assigned to us. This schedule starts from the date of: (Whichever is later)

* Signing the contract including mobilization of equipment.
* Handing over the site ready for work.
* Receiving the advance payment.
* Receiving the final approved drawings.

VI) Terms of payment:

1. 25 % of the total amount of the contract to be paid in advance upon signing the contract.
2. 95 % of our half monthly invoices after deducting the advance payment (25%) to be paid within one week of submission (5 % deduction from our invoices will be paid within one month after the completion of our scope of work). Delay in payment entitles Misr Raymond to stop works on site and to claim delay time and expenses.

- **Any delays caused by factors out of our control we will charge 7,500 $/Rig/day and an extension of time related to these delays shall be added to our schedule.**

We hope that you will find our offer of interest and in case of any inquiries please do not hesitate to contact the undersigned.

Thank you and Best regards,

Mostafa Aboulezz
Technical Office Manager

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(+٢٠٢) ٣٣٣٦٨٨٩١
فاكس : ٣٧٤٨٦٢٥٣ (+٢٠٢)

DAYRUT REGULATOR PROJECT
Bill of Quantities

Serial	Item	unit	Rate ($)
1	Mobilization & Demobilization.	LS	40,000
2	Execution of bored piles (80cm) , does not include the supply of concrete and Steel.	L.m	95
3	Execution of bored piles (100cm) , does not include the supply of concrete and Steel.	L.m	120
4	Execution of bored piles (120cm) , does not include the supply of concrete and Steel.	L.m	145
5	On shore driven sheet piles to the required length. Price does not include supply or painting of sheet piles.	Ton	475
6	Off shore driven sheet piles to the required length. Price does not include supply or painting of sheet piles.	Ton	950

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: ٣٣٣٦٨٨٩١ (+٢٠٢)
فاكس : ٣٧٤٨٦٢٥٣ (+٢٠٢)

Date : 20 Dec. 2016

Bored Piles – Non Binding Budgetary Offer "Cost"

Project: Construction of the New Dirout Group of Regulators, Piling Work

Dear Sir,

Kindly find hereinafter our budgetary offer for executing the bored piling works using our owned equipment subject to the prices and conditions stated herein after.
It is to be noted that our budgetary offer considers to deliver Four piling rigs to the project location, as well as Four crawler cranes and loader(s) to serve the proposed rigs.

I. Documents & References

1-Invitation e-mail dated on November 14th, 2016

2-Project summary and preliminary design drawings, BOQ attached within the invitation e-mail

II. Scope of work

We based our budgetary offer for executing cast in situ bored piles as detailed below:

1- Mobilization of Piling Equipment and de-mobilization after completion of work
2- Performing preliminary compression load test on Non-working piles.
3- Performing compression load test on working piles.
4- Drilling & Installation of app. 878 No. of land Cast-In-Situ Bored piles of φ 800mm, 1000 & 1200mm with driving depths - mentioned in the Cast-in-place RC Pile sheet - measured from the working platform at 9.40 higher than the cut off level prepared by Others.
   The final quantities will be defined upon completion of works
5- Performing integrity pile load tests on all piles.

III. Technical

Bored Pile:

The bored piles will be installed using our owned piling rigs "Bauer/Soilmec or equivalent" from the suitable working platform provided by Others according to the final approved design at maximum 2.0m above the pile design cut off level and as per the following sequence:

1. Pile Position shall be set out by means of surveying instruments.
2. Our drilling machine setting out shall be performed by centring the excavation tool into the permanent casing and the Kelly bar will be vertically positioned.
3. The first (5) meter shall be drilled with oversized auger, then (5) meter temporary casing shall be installed with (one) meter up stand above the ground level, the casing diameter will be 5 cm oversize the pile diameters.
4. The pile will be excavated using different types of tools augers and buckets according to the nature and consistency of soil. The excavation will be performed using bentonite slurry as drilling fluid which will be pumped from the mixed bentonite storage tank keeping always a positive head (1.5 m above the water table) to keep the hole opened. Any bentonite slurry loss due to seepage will be immediately compensated.
5. The drilling operation will be proceeding to the design depth. The last one or two meters of the pile will be drilled using cleaning bucket which also clean the tip of the pile prior to placing the reinforcement cage and the concreting operation. Meanwhile, a bentonite slurry sample will be taken to check properties (sand content, density, viscosity and PH).
   Should the in situ test results are out of the specification the bentonite slurry inside the hole will be replaced by fresh or recycle bentonite using air lift technique or submersible pump. Recycling the bentonite slurry inside the borehole shall continue till reaching the specified values.
6. By means of a service crane the reinforcing cage will be lowered into the pile. The minimum clear distance between the reinforcing bars should be 70/100mm to ensure that the concrete will flow outwards from the center of the cage to fill the pile shaft completely. On the other hand, concrete spacers will be fixed to the cage to maintain concrete cover as well as to center the cage in the hole, the cage will be anchored to the steel casing by mean of hook bars (hungers) welded to the casing, these hungers will be sufficient in number and diameter to carry the cages. The cage will be in accordance with the final drawings and project specification. The reinforcement steel bars will be weldable grade 60.

7. Lowering of the steel cage will be followed by the installation of (8) inches diameter tremie pipe. The tremie pipe is placed by means of a service crane approximately 300mm above the base of the pile, and a steel plate is placed at the tremie hopper before the concrete is discharged, then will be pulled out by means of a rope without any interruption to concrete supply just before the hopper is full. The length of the tremie will be reduced as the concrete is being placed. The lower end of the tremie pipe remains submerged in concrete throughout the process and the drilling fluid is displaced upwards by the concrete forming the pile shaft. The concrete used will be in accordance with project specification have 20 to 22cm slump.
8. The temporary casing will be withdrawn from the ground immediately after the completion of concreting and after cutting the suspended reinforcement cage.
9. The pile load test on piles shall be carried out in accordance with the Egyptian code of practice (part 4) or the ASTM D-1143 (for Compression tests) using Kentledge system as reaction.
10. All working piles will be tested using low strain dynamic tests (integrity test) by an independent firm, all reports, results interpretation will be submitted to the Engineer for approval.
11. **Tolerance**: the pile will be considered acceptable of the following tolerance are met:
    - Deviation of pile position at any direction at working platform = 75mm
    - Pile verticality = 1.5 %
    - Sand content of the bentonite sample before concreting $\leq$ 4%.

IV. Budget Cost:

The budgetary rates and prices in the below Bill of Quantities are for Works as described in this budgetary offer. Should any variation in scope of Work, time schedule and /or soil condition are encountered, our budgetary rates & prices are found to be no longer applicable, new rates and prices shall be agreed upon before the varied Work begin.

Meanwhile, the total amount of work will be calculated according to the final quantities of Work executed at the site according to the actual cost on Oracle system.

No.	Description	Unit	Qty	Unit (US$)	Total Price US$
1) Piling Work					
1.10	Mobilization & Demobilization of Equipment and site installation	EA	4	25,000	100,000
1.20	800mm , Bored Pile Installation, including drilling, pouring concrete and cage fabrication	LM	7,499	170	1,274,830
1.30	1000mm , Bored Pile Installation, including drilling, pouring concrete and cage fabrication	LM	7,619	180	1,371,420
1.40	1200mm , Bored Pile Installation, including drilling, pouring concrete and cage fabrication	LM	3,385	200	677,000
1.50	Preliminary Pile Load Compression Test up to 1200 ton	No.	1	26,250	Rate only
1.60	Working Pile Load Compression Test up to 1000 ton	No.	1	18,000	Rate only
1.70	Integrity Pile load Test	No.	878	22	19,316
1.80	Standby Rate (Rig/Shift)	No.	Rig/Shift	3,000	Rate only
2) Sheet Pile Walls					
2.10	Driving of Sheet Pile Wall by Vibratory Hammers	Ton	1	3,000	Rate only
2.20	Extraction of Sheet Pile Wall	Ton	1	1,500	Rate only
Total Amount (US$)					3,442,566

Basis of budgetary Prices:

The above budgetary prices are based on workmanship only, considering the below:

- The materials are excluded from our prices and to be supplied by Others.

V. Commercial Conditions:

1. Prior to start the piling works, a dry well compacted and levelled working platform will be provided to us free of charge at the required level. The compacted material will be approximate 25cm thick of dolomite materials or equivalent to withstand the stress imposed by our equipment (2.00 Kg/cm^2). The site shall be free of all overhead, underground obstruction and shall have no walls, embankment or other obstacles (Cables, Trees,……etc.) closer from any pile position.

2. It is required to provide the following services at site free of charge:
   a) Potable water supply for bentonite mixing.
   b) Official bench marks.
   c) Site protection.
   d) Supporting, disconnecting and/or diverting of the existing utilities "Water pipes, gas pipes, electric cables," this is supposed to be done by the client.
   e) Arranging all licenses, building permit, NOC permits and approval from the relevant authorities / neighbours and third parties allowing for our work to proceed without any interruption.
   f) Necessary permits to allow our work to proceed day and night (24 hours/day).
   g) Provide suitable access road to the Job Site and to the working areas within the Site for personnel, Plant and Equipment.
   h) Enough space at the work area to set up our equipment, offices and bentonite tanks as well as to stock the excavated material to be dried and then transported to the damping area by others.

3. Our prices exclude the following items which will be provided by others free of charge, and in time not to interrupt our works:

   3.1. **General / Contractual**

   a) Any soil investigation required for the design works.
   b) Any pertinent design or Shop drawings.
   c) Any dewatering required at site.
   d) Any earthworks.
   e) All material testing required by Employer/Engineer, including but not limited to all tests to be carried out by independent lab, etc.

f) Instrumentations/dilapidation survey for monitoring the existing surrounding utilities or structures (if required).

g) Value added taxes (VAT) on contracting service.

h) Decennial liability insurance of the work.

i) Third party, professional indemnity insurance and contracting all risk insurance and any other kind of insurance required by the contract documents. We will be only responsible to submit insurance policy covering all our equipment and labour at site.

j) HSE equipment, site safety signs, fire extinguishers, pollution and dust control with cooperation with our Safety officers. We are allowing only for PPE for our Staff, labours, Equipment and Plant.

k) Any allowance for facilities to the Employer, and Engineer.

l) First aid facilities including medical care supply.

3.2. **Specific / Technical**

a) Ready-mix concrete including waste, according to the project specification; and to be delivered to each pile position.

b) Steel reinforcement rebar including waste, according to the project specification and your final design, to be delivered at our steel yard. We will be responsible for manufacturing of the pile cages as per approved drawing. Meanwhile, we considered in our prices that the steel ratio is 100 Kg/cubic meter, additional charge will be applicable for manufacturing any extra tonnages.

a) Permanent casing/Liner, (If required).

b) Pile trimming or head treatment.

4. Our budgetary unit rates are based on fuel current market price, should any increases in the market prices occur, we will charge you with the difference.
5. Our unit prices consider withholding taxes (0.5%) and social insurance taxes (1.8%).
6. The length of piles which payment would be invoiced is measured from the working platform level, the pile tip level. While all other items shall be according to the above BOQ.
7. Construction drawings showing layout and alignment shall be provided to us.
8. Our budgetary unit prices and schedule are based on drilling into normal soil. In case of encountering hard soil, boulders, cobbles; we will use rock auger and/or rock barrel. Then, our budgetary unit rates will not be any more applicable, and new rates as well as an extension in time schedule to be mutually agreed.

VI. Schedule

We would carry out this work within **Four** weeks for the installation of bored piles, including equipment mobilization, site installation works and excluding the On-shore preliminary pile load test which is supposed to be executed at early stage parallel to the pile production

We will be granted to work continuously 6 days/week & 24 hours/day. Any delay out of our control due to the employers/other contractors, the idle time cost will be charged to you and an extension of time related to these delays will be added to our schedule.

The above schedule starts from whichever is later of the following dates:

a) Signing the contract
b) Receiving the advance payment.
c) The site ready for works.
d) Receiving the final drawings.
e) Getting the necessary permits for our staff and equipment to enter site.

VII. Terms of payment

a) 25% of the total amount of the contract to be paid in advance upon signing the contract.
b) 100% of our monthly invoices after deducting the advance payment, to be paid within 30 days of submission.

VIII. Equipment:

The following equipment will be provided for the scope of work:

a) Four Piling Rig "Bauer/Soilmec" or equivalent
b) Four Service Cranes, Capacity sufficient to handle the tremie pipe for concreting and the installation of the reinforcement cages...
c) Loader(s)
d) Bentonite mixer
e) Auxiliary equipment(s).

الشركة العربية للأساسات
فيبرو
ش.م.م.ت
المركز الرئيسى / ٥ ش قصر النيل - القاهرة

VIBRO
ARABIC Co. FOR FOUNDATIONS
Cairo - Egypt
5 Kaser El Nile St.,

1929

إحدى الشركات التابعة للشركة القابضة للتشييد والتعمير ش.م.م.ت

صادر: ٤٠ / ع
تاريخ: ١٢ / ١٢ / ٢٠١٦
شركة : سانيو للانشاءات
السيد المهندس / وليم

قناطر ديروط بأسيوط

تحيه طيبه وبعد،،،

إيماء إلى طلب سيادتكم بتقديم عرض سعر تنفيذ اعمال الخوازيق للمشروع عاليه للمشاركه في دراسه الجدوي - نتشرف بان نرفق طيه عرض اسعار أعمال الخوازيق بناء علي المواصفات والكميات المذكوره بالمقايسه المرفقه .

نحيط سيادتكم علما بأن الاسعار المذكوره بعاليه تشمل التنفيذ باليابس فقط بعد قيام سيادتكم بردم الموقع وتسويته .

أولا : بيان بالكميات والمواصفات والشروط الخاصة بهذا العطاء :

١- بالمقطوعية تكاليف نقل الماكينة والمعدات المساعدة الى موقع المشروع واعادتها مره واحده بعد نهو الاعمال بفئة وقدرها ٢٠٠٠٠٠ جنيه (مائتان الف جنيها) للماكينة الواحدة .

٢- بالمتر الطولى مصنعية تنفيذ حوالى ١٨٠خازوق بالتفريغ طراز الحفر الدوار قطر ٨٠ سم وبطول ١٢,٨ ، ١٤,٢ متر ومسلحه بتقفيصه حديديه مكونه من ١٥ سيخ قطر ٢٢ مم صلب عالي المقاومه وكانات حلزونيه قطر ٨ مم كل ١٥سم واطواق داخلية قطر ٢٢مم كل ٢ متر صلب عادي المقاومه وذلك بسعر المتر الطولى ١٠٠٠ جنيه (الف جنيها).

٣- بالمتر الطولى مصنعية تنفيذ حوالى ١٦٢ خازوق بالتفريغ طراز الحفر الدوار قطر ٩٠ سم وبأطوال ١١,٣ ، ١٥,٣ ومسلحه بتقفيصه حديديه مكونه من ١٨ سيخ قطر ٢٢ مم صلب عالي المقاومه وكانات حلزونيه قطر ١٦ مم كل ١٠سم واطواق داخلية قطر ٢٢مم كل ٣متر صلب عادي المقاومه وذلك بسعر المتر الطولى ١١٠٠جنيه (الف ومائه جنيها).

٤- بالمتر الطولى مصنعية تنفيذ حوالي ١٧٦ خازوق بالتفريغ طراز الحفر الدوار قطر ١٠٠ سم وبأطوال ٨,٨ ، ١٢,٨ ، ١٣,٨ ومسلحه بتقفيصه حديديه مكونه من ٢٢ سيخ قطر ٢٢ مم صلب عالي المقاومه وكانات حلزونيه قطر ١٦ مم كل ١٠سم واطواق داخلية قطر ٢٢مم كل ٣متر صلب عادي المقاومه وذلك بسعر المتر الطولى ١٣٠٠جنيه (الف ووثلاثمائه جنيها) .

٥- بالمتر الطولى مصنعية تنفيذ حوالى ١٩٢خازوق بالتفريغ طراز الحفر الدوار قطر ١١٠ سم وبأطوال ٧,٣ ، ٨,٣ ، ١٣,٣ ، ١٤,٣ ومسلحه بتقفيصه حديديه مكونه من ٢٧ سيخ قطر ٢٢ مم صلب عالي المقاومه وكانات حلزونيه قطر ١٦ مم كل ١٠سم واطواق داخلية قطر ٢٢مم كل ٣متر صلب عادي المقاومه وذلك بسعر المتر الطولى ١٤٥٠جنيه (الف واربعمائه وخمسون جنيها) .

٦- بالمتر الطولي مصنعية تنفيذ حوالي ١٦٨خازوق بالتفريغ طراز الحفر الدوار قطر ١٢٠ سم وبأطوال ٧,٣ ، ٧,٨ ، ١٢,٣ ، ١٤,٨ ومسلحه بتقفيصه حديديه مكونه من ٣٢ سيخ قطر ٢٢ مم صلب عالي المقاومه وكانات حلزونيه قطر ١٦ مم كل ١٠سم واطواق داخلية قطر ٢٢مم كل ٣متر صلب عادي المقاومه وذلك بسعر المتر الطولى ١٦٠٠جنيه (الف وستمائه جنيها) .

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❖ الاسعار عاليه تشمل : -

- حفر الخازوق .
- صب الخرسانة الجاهزة .
- تنزيل التقافيص الحديدية .
- الاسعار لا تشمل اى اعمال لم ينص عليها صراحة بالعطاء .
- المحاسبة على قياس اطوال الخوازيق من منسوب وقوف الماكينة وحتى قاع الحفر للخازوق .

٧- في حالة طلبكم اجراء تجارب جس صوتي على الخوازيق يتم المحاسبه على فئة التجربه الواحده ٢٠٠ جنيه (مائتان جنيها) على الا تقل الزياره عن ٥٠٠٠ جنيه (خمسه الاف جنيها) .

٨- اسعار مواد الخازوق (الوقود- الزيوت- الاجور- ..... وخلافه) طبقا لاسعار السوق السائدة وقت تقديم هذا العطاء وفى حالة زيادة الاسعار يحق لنا المطالبة بفروق الاسعار وصرفها .

٩- الحفر فى طبقات عادية (رملية- طينية) وفى حالة الحفر فى طبقات (متحجرة- حجر جيرى- طبقات صخرية- طبقات عالية المقاومة) يتم احتساب علاوة اختراق يتم الاتفاق عليها في حينه .

١٠- يحق لشركتنا نقل جميع الادوات والمهمات والالات الموجودة بالموقع فور الانتهاء من تنفيذ اعمال الخوازيق .

١١ - فى حالة الحاجة لنقل الماكينة والمعدات المساعدة بين المحاور باستخدام ترلات او كساحات (نقل داخلى) فسيتم المحاسبة على فئة قدرها ٢٥٠٠٠ جنيه (خمسة وعشرون الف) للماكينة الواحدة للنقلة الواحدة اويتم النقل بمعرفة وعلى حساب سيادتكم .

١٢ - مدة تنفيذ الخوازيق طبقا للبرنامج الزمنى للمشروع والمعتمد من الطرفين ويبدأ من تنفيذ اول خازوق الذى يبدا بعد التوقيع على العقد او دفع الدفعة المقدمة او تسليم الموقع بكامل مساحته جاهز للعمل او اعتماد الرسومات التنفيذية النهائية والتعليمات الفنية ..... ايهم لاحق .

١٣ - يتم تسليمنا مجموعة كاملة من الرسومات التنفيذية النهائية المعتمدة للتنفيذ بموجبها .

١٤ - يتم تنفيذ الخوازيق طبقا للمواصفات المذكورة فى الكود المصرى للتربة والاساسات لسنة ٢٠٠١ .

١٥ - الأسعار لا تشمل التقويات والتعويضات للمرافق أو أي أعمال لم ينص عليها صراحة بالعطاء.

التزامات شركتكم :

١- يتم تسليمنا كل الطرق والممرات الموصلة الى الموقع محفور على المنسوب المراد التنفيذ منه بحيث تسمح دخول وخروج المعدات وتركيبها وازالة طبقة الاسفلت ان وجدت وكذلك تسليمنا الموقع بكامل مساحته جافا ومستويا وصلبا ومردوم بطبقة من الدقشوم لاتقل عن ٣٠ سم فى حالة الحاجة ومدموك دمكا جيدا وصالحا لتحرك وتحمل ثقل الماكينة وخاليا من المرافق او التشوينات او اى عوائق ظاهرة او غير ظاهرة تمنع او تعوق تنفيذ الخوازيق او مناورة الماكينة وعلى منسوب يعلو المياه الجوفيه بما لايقل عن ١ متر ان وجدت مع تجهيز وتسوية الموقع بعرض كافى للتشغيل وتسليمنا محورين رئيسين متعامدين ونقطة ثابتة للصفر الاعتبارى كما تقومون بتجهيز الطرق اللازمة لتسهيل وصول الماكينة والمعدات للموقع واعادتها بامان وعمل السور المؤقت حول الموقع فى حالة الحاجة

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٢- توفير مصدرى المياه والكهرباء لنقطة متوسطة داخل موقع عمل الماكينة والمعدات مع تحملكم قيمة الاستهلاك
٣- توفير مكان مناسب للتشوينات وورشة الحديد بمعرفتكم وعلى حسابكم داخل موقع العمل دون ادنى تكلفة علينا .
٤- استخراج جميع التصاريح والتراخيص اللازمة لتنفيذ الاعمال بالموقع قبل بداية العمل وكذلك التصاريح والتراخيص اللازمة للعمل ليلا وعمل اللافتات الاسترشادية والانارة اللازمة لسلامة المرور بمعرفتكم وعلى حسابكم .
٥- تحديد اماكن جميع المرافق العامة على الطبيعة من (مواسير المياه او كابلات كهربائية او صرف صحى او تليفونات وخلافه) وتسليمنا اللوح الاسترشادية لها وتكون مسئولية شركتنا المحافظة عليها فقط وفى حالة وجود تعارض بين المرافق واماكن الخوازيق تقوم شركتكم بتعديل رسم الخوازيق واعتماده .
٦- فى حالة ظهور عوائق او اساسات قديمة اسفل الموقع قد تعوق تنفيذ الاعمال موضع هذا العطاء سيتم تطهيرها وازالة مخلفاتها بمعرفتكم وعلى حسابكم .
٧- توفير جهاز اشراف لموقع العمل طوال مدة التنفيذ واثناء العمل ليلا او فى غير مواعيد العمل الرسمية وبدون خصم اى مبالغ من مستحقاتنا لدى سيادتكم نظير ذلك .

❖ المحاسبة :-

١- ستتم المحاسبة بناء على الكميات المنفذة فعلا فى الطبيعة والزيادة او النقص فى الكميات يكون فى حدود ٢٥% (خمسة وعشرون فى المائه) .
٢- يتم صرف دفعة مقدمة قدرها ٢٠% (عشرون فى المائه) من قيمة العطاء ويتم تسويتها بالمستخلصات النصف شهرية بنفس النسبة .
٣- يتم صرف ماقيمته ١٠٠ % (مائه فى المائة) من قيمة الاعمال التى تم تنفيذها بموجب مستخلصات نصف شهرية على ان يتم حجز ٥ % (خمسه في المائه) من قيمة الاعمال المنفذه كضمان اعمال وصرف ٩٥ % (خمسه وتسعون في المائه) من قيمة الاعمال المتبقيه بالكامل من قيمة الاعمال خلال ٧ أيام من تاريخ تقديم المستخلص وتصرف خلال ٧ ايام من تاريخ تقديمها كحداقصى دون الارتباط بالصرف من رب العمل وفى حالة تاخر الصرف تضاف المدة الى مدة التنفيذ مع تحملكم جميع الاعباء الناتجه عن التأخير .
٤- يصرف ال٥% (خمسة فى المائة) من قيمة الاعمال المنفذة والسابق حجزها وكذا جميع مستحقاتنا فور التسليم الابتدائى لاعمال الخوازيق والذى يتم بمجرد الانتهاء من تنفيذ الخوازيق موضوع هذا العطاء ونجاح تجارب التحميل ان وجدت دون الارتباط بالصرف من رب العمل .
٥- يرد ال٥% (خمسة فى المائة) خطاب ضمان التأمين النهائى بعد عام من تاريخ تسليمنا لشركتكم ابتدائيا اعمال هذا العطاء دون الارتباط بالصرف من رب العمل .
٦- يحق لنا تعويضا عن المصاريف التى تتكبدها شركتنا اذا توقفت الماكينة عن العمل بسبب يرجع لكم مثل (عدم تجهيز مناطق العمل او الطرق المؤدية للموقع – تعديل المحاور الرئيسية او الرسومات التنفيذية – عدم استخراج التصاريح والتراخيص – عدم اعتماد الرسومات التنفيذية النهائية – التأخير فى توريد مواد الخازوق من خرسانة وحديد تسليح المصنع - ظهور عوائق يلزم تطهيرها ايقاف المعدات - اى اعطال اخرى غير منتظرة) اى توقف لايرجع لشركتنا و قدره ١٠٠٠٠ جنيه (عشرة الاف) للماكينة عن كل يوم يتعطل فيه العمل مع اضافة مدة التوقف لمدة التنفيذ وفى حالة توقف

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٧- الماكينة والمعدات عن العمل لمدة ١٠ ايام متواصلة يتم رفع الماكينة والمعدات ثم اعادتها مرة اخرى (ذهاب وعودة) بفئة ١٠٠٠٠٠ جنيه (مائة الف جنيها) أو على حساب سيادتكم .

- الاستلام الابتدائى للاعمال فور الانتهاء من تنفيذ الخوازيق ونجاح تجارب التحميل ان وجدت .
- الاستلام النهائي بعد مرور عام من تاريخ التسليم الأبتدائى .
- الاسعار لا تشمل ضريبة القيمة المضافة حيث تقومون سيادتكم بتحمل قيمة هذه الضريبة وتشمل ٠,٥ % ضريبه الارباح التجاريه فقط
- مدة سريان العرض اسبوعين من تاريخه

نرجو أن يحوز هذا العرض قبولكم
وتفضلوا بقبول فائق الاحترام ...

مدير عام العطاءات والتعاقدات

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Arab Contractors Mechanical & Electrical Engineering
ش.م.م إحدى شركات المقاولون العرب تأسست عام ١٩٨٠م

2017/1/11

الموضوع : ايجار بانتون + حفار بذراع طويل
+سيارة قلاب للعمل بموقع بحر يوسف
وترعة الابراهيمية بديروط

السادة شركة / Sanyu consultant

تحية طيبة وبعد ،،،

بالاشارة الى الموضوع اعلاه نتشرف بأن نقدم لسيادتكم عرض اسعارنا كالتالى :-

- القيمة الايجارية للحفار بذراع طويل والبانتون المطلوب هى 8500 جنيه / يوم (فقط ثمانى الاف وخمسمائة جنيه لا غير / يوم)
- القيمة الايجارية للسيارة القلاب 2600 جنيه / يوم (فقط الفان وستمائة جنيه لا غير / يوم)
- تكلفة نقل المعدات الى موقع العمل ذهاب وعودة 115000 جنيه (فقط مائة وخمسة عشرة الف جنيه لا غير)
- توفير الوقود اللازم للمعدات بموقع عمل مسئولية سيادتكم وعلى حسابكم .
- توفير مصدر كهرباء اثناء فترة تجميع البانتون .
- توفير الاقامة والاعاشة لطاقم العمل .
- صلاحية العرض لمدة شهر اعتبارا من تاريخه (حتى 2017/2/11)
- يتم دفع دفعة مقدمة مقدارها 15% من اجمالى حجم العمل .

نأمل ان يحوز عرضنا القبول لدى سيادتكم

وتفضلوا بقبول وافر الاحترام والتقدير ،،،

مدير عام الشركة

مهندس /
عبد المجيد الجوهري

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المخازن : ١٠ شارع ٦ اكتوبر - شبرا الخيمة
تليفون : ٠٢٠٢ ٤٢٢٢٨٣٥٤ القاهرة

Date: January 11, 2017

Messrs.': Sanyu Consultants Inc.

Sirs,

Referring to your request for hiring one barge, one long arm backhoe and one dump truck, pls. find below offer:

1-	Long arm backhoe	2,250 EGP/day
2-	Barge	7,000 EGP/day
3-	Dump Truck 10m3	2,600 EGP/day
4-	Barge and D/Truck as one unit	8,500 EGP/day
5-	Mobilization to/from Dayrut	115,000 EGP

The surface area and load of barge is enough to carry the long arm backhoe and the dump truck in the order of operation.

Conditions:

1. Sanyu Consultants will supply fuel for backhoe and dump truck.
2. Sanyu Consultants will supply (3) phase electric source during assembling the barge.
3. Sanyu Consultants will provide accommodation, food supplies and substances.
4. 15% expected contract amount shall pay in advance.

General Manager
Abdel Meguid Gohary

Date: 12/1/2017

To: Sanyu Consultants Inc.
C/O: Mr.Kadowaki

Offer for Barge Capacity 70 ton

Sir,

We are pleased to send our quotation for supplying Barge to join the project at Dayrut-Assuit with following specification and conditions:

- Barge capacity 70 ton
- Barge deck area up to 96 m2
- Rental cost/day 9,200 LE
- Mobilization & Demobilization 100,000 LE
- Facilities shall arrange by your side:
  a) Electric source for assembling and disassembling
  b) Accommodation and food for our technicians
  c) Transportation and commutation from accommodation to/from Cairo and from/to site
  d) Rental period not less one month
  e) Advance payment 200,000 LE to be deducted each progress payment.
  f) Validity: two months.

With My Best wishes,

Esam Shalaby
Logistics Manager

شلبي للنقل والتجارة

17 Haroun El Rashid st., Heliopolis – Cairo – ARE

17 شارع هارون الرشيد-مصر الجديدة - القاهرة - جمهورية مصر العربية

E-11-4. Import clearance and Transportation charges

TRUST TRANS SHIPPING

To:	Sanyu Consultant	From :	Mr. Hossam Fathi
Att.:	Mr. Masanabu Kadowaki	Date :	Jan,01st 2017
Fax :		E-mail	hosshoss@gmail.com
Phone :	+2012-80214-247	Sub :	Quotation for Customs Clearance

Dear Sir,

We Trust Trans Shipping Co. have the honor to submit you our quotation for your Import shipment as follows

Import clearance & Transportation charges at Alexandria Port:-

Description	Specification	Unit	Unit Price (LE)	Remarks
Port discharge fee	General Cargo	F/T	**150.00**	
Customs clearance Minimum	General Cargo	F/T	**50.00** **3000.00/ship**	
Transportation cost	General Cargo (Alexandria to Dirout)	F/T	**450.00**	
Transportation cost	General Cargo (Cairo to Dirout)	F/T	**350.00**	
Transportation cost	for heavy equipment (Cairo to Dirout), 30t	unit	**8250.00**	
Transportation cost	for heavy equipment (Cairo to Dirout), 40t	unit	**9700.00**	
Transportation cost	for heavy equipment (Cairo to Dirout), 50t	unit	**11000.00**	
Transportation cost	(Cairo to Dirout), 40t	Low Bed	**35.000/ Low bed**	**7 X 3.45 X 3 M**

Cairo Office : 15 Elshaheed Sayed Zakaria st., Sheraton Bld., Heliopolis, Cairo, Egypt.
Tel. : +202 2266 60 34
Fax : +202 2266 60 35
Mob.: +2 011 6557 668
info@trusttrans.net

China Office : Flat 201, Unit 1, No. 5 building, Fucheng District, Yiwu City, China.
Tel - fax : 0086 - 0579 - 8511 2623
Yiwu Mob. : 0086 - 1324 8474 998
www.trusttrans.net

General Conditions: -

- Above rates valid for general cargo only non-hazards cargo
- Above rates excluding any official receipts (Duty, Storage, Tax, DO, THC, road Receipts, …….etc)
- Above rates subject to 13% VAT up to end of Jun,2017 and will 14% from 1st of July,2017
- Any wooden Pallets of boxes should be fumigated and stamped
- Unloading at site is out of our scope
- Above rates excluding road and bridge permissions and traffic permissions,
- Above rates Excluding road receipts & Toll station fees (Karat)
- Any other fees or charges required will inform you on time of operation
- Above rates valid to end of March 2017
- Above transportation rate based on current Solar rate and any increasing in solar Market rate our quotation will be changed accordingly

N.B It is our pleasure to cooperate and handle operation from Door to Door including the ocean freight from origin to destination port

Hoping that the above rate gains your satisfaction and your kind approvals

Kindest Regards,

Hossam Fathi

Commercial Manager

+2-012-80-214-247

Cairo Office : 15 Elshaheed Sayed Zakaria st., Sheraton Bld., Heliopolis, Cairo, Egypt.
Tel. : +202 2266 60 34
Fax : +202 2266 60 35
Mob.: +2 011 6557 668
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www.trusttrans.net

E-11-5. Well Point

RAMSSES PUMP CO.
S.A.E.

شركة رمسيس للطلمبات
ش.م.م.

السيد المهندس / مدير مشروع قناطر ديروط الجديدة

شركة مانيو الاستشارية للمقاولات

تحية طيبة وبعد ،

يتشرف ان نقدم لسيادتكم عرض اسعارنا عن أعمال النزح الجوفى بنظام الحراب بالمشروع عالية طبقا للبيانات الفنية الواردة الينا عن الاعمال المطلوب تنفيذها وبيانه كالاتـى :

اولا : البيانات الفنية الواردة الينا من سيادتكم :

- تصميم نظام النزح الجوفى لموقعين بنظام النقط الابرية (الحرب) .
- اعمال النزح الجوفى لموقع عليه عدد (٧٦ حربة) .
- اعمال النزح الجوفى لموقع عليه عدد (١٢٤ حربة) .

ثانيا : جدول بنود الاعمال والفئات .

م	مفردات بند الاعمال	الوحدة	الكمية	الفئة	الإجمالى
اولا	تكلفة الموقع الاول بعدد (٧٦ حربة).				
١	بالمقطوعية تكلفة أعمال تحميل ونقل معدات التجفيف بنظام الحراب ونقل خطوط الطرد ومواسير السحب والحراب والطلمبات الديزل وطلمبات غرز الحراب او التخريم حسب طبيعة التربة اثناء التنفيذ وذلك ذهاب وعودة والفئة تشمل تجهيز وتركيب دائرة التجفيف وفكها بعد انتهاء الاعمال وذلك لزوم اعمال تجفيف مبنى عدد (٧٦) حربة طبقا للتصميم المرسل لنا وايضا تكلفة نقل خط طرد فى حدود ١٠٠ متر طولى وذلك إلى موقع المشروع باسيوط والفئة تشمل تنفيذ البند طبقا لاصول الصناعة وتعليمات المهندس المشرف.	مقطوعية	١	١٣٥٠٠٠	١٣٥٠٠٠
٢	باليوم تكلفة تشغيل اعمال التجفيف بنظام النقط الابرية لعدد (٧٦ حربة) والفئة تشمل تشغيل الطلمبات الديزل شاملة السولار اللازم للتشغيل ٢٤ ساعة يوميا والعمالة الفنية اللازمة للتشغيل طوال مدة تنفيذ الاعمال وطبقاً لاصول الصناعة وتعليمات المهندس المشرف	يوم	٠	٦٥٠٠	٦٥٠٠

شركة رمسيس للطلمبات
شركة مساهمة مصرية

مدينة ٦ اكتوبر – المنطقة الصناعية الثانية قطعة ١١٢ ت وفاكس : ٣٨٣٣٢٨٠٨ – ٣٨٣٣٢١٧٤ س . ت : ٩١٢٠٤ جيزة – رأس المال ٤٠٠٠٠٠٠ جنيه
6 October City - 2nd Industrial Area - Piece 112 Tel. & Fax : 3832 28 08 - 3833 21 74 Capital 4000000 - C. R. : 91204 Giza

م	منطوق بند الاعمال	الوحدة	الكمية	الفئة	الاجمالى
ثانيا	تكلفة الموقع الثانى بعدد (١٢٤ حربة).				
١	بالمقطوعية تكلفة أعمال تحميل ونقل معدات التجفيف بنظام الحراب ونقل خطوط الطرد ومواسير السحب والحراب والطلمبات الديزل وطلمبات غرز الحراب او التخريم حسب طبيعة التربة اثناء التنفيذ وذلك ذهاب وعودة والفئة تشمل تجهيز وتركيب دائرة التجفيف وفكها بعد انتهاء الاعمال وذلك لزوم اعمال تجفيف مبنى عدد (١٢٤) حربة طبقا للتصميم المرسل لنا وايضا تكلفة نقل خط طرد فى حدود ١٠٠ متر طولى وذلك إلى موقع المشروع باسيوط والفئة تشمل تنفيذ البند طبقا لاصول الصناعة وتعليمات المهندس المشرف.	مقطوعية	١	٢٢٥٠٠٠	٢٢٥٠٠٠
٢	باليوم تكلفة تشغيل اعمال التجفيف بنظام النقط الابرية لعدد (١٢٤ حربة) والفئة تشمل تشغيل الطلمبات الديزل شاملة السولار اللازم للتشغيل ٢٤ ساعة يوميا والعمالة الفنية اللازمة للتشغيل طوال مدة تنفيذ الاعمال وطبقاً لاصول الصناعة وتعليمات المهندس المشرف.	يوم	٠	١٢٥٠٠	١٢٥٠٠

شروط اضافية :-

١- تسليمنا الموقع خالي من اى عوائق ..
٢- توفير ونش او معدة مناسبة للمساعدة في أعمال التحميل والتنزيل .
٣- عمل التصاريح اللازمة للعمل ليلا ونهارا طوال مدة تنفيذ الاعمال .
٤- عمل التصاريح اللازمة لتركيب خطوط الطرد ولمسافة لا تزيد عن ١٠٠ متر طولى .
٥- صرف دفعة مقدمة بنسبة ٢٥ % من عرض أسعارنا .
٦- يتم عمل مستخلصات شهرية بالأعمال التي يتم تنفيذها اولا باول .

وتفضلو سيادتكو بقبول فائق الاحترام

المدير المسئول
م / سمير تاضروس

شركة رمسيس للطلمبات
شركة مساهمة مصرية

RAMSSES PUMP CO.
S.A.E

To: Manager of Dayrut Regulators Project
Sanyu Consultants Inc.

Dears,

We have the honor to submit our quotation for the well point system based on your sent data:

1. Two sites dewatering by well point sys. 67 wells and 124 wells.
2. BOQ

No	Item	Unit	Unit Price EGP)	Total (EGP)
1	Site No.1 (76 wells): Loading, transportation of dewatering equipment, suction pipes and discharge pipes, pumps to Dayrut-Assuit considering the length of discharge pipe not more 100m	L.S	125,000	125,000
2	Daily operation and control for 76 wells	Day	6,500	6,500
3	Site No.2 (124 wells): Loading, transportation of dewatering equipment, suction pipes and discharge pipes, pumps to Dayrut-Assuit considering the length of discharge pipe not more 100m	L.S	225,000	225,000
	Daily operation and control for 124 wells	Day	12,500	12,500

3. Offer conditions
   - Handing over site free from any obstacles
   - Provide crane for loading and unloading.
   - Provide necessary permissions for discharging the water to distance not more 150m.
   - 25% expected work amount in advance.
   - Monthly payment against invoice based on the executed works during month.

The Arab Contractors
OSMAN AHMED OSMAN & Co.
www.arabcont.com
شركة مساهمة مصرية

المقـــاولون العـــرب
عثمان أحمد عثمان وشركاه

File No. ..... رقم القيد : Dept. ..... إدارة
Date ..... التاريخ : Address ..... العنوان

السادة / شركة سانيو الاستشارية

تحية طيبة وبعد ،

بالإشارة الى طلب سيادتكم عرض اسعارنا عن اعمال تخفيض المياه الجوفية لمشروع قناطر ديروط الجديدة طبقا لتقرير النزح الجوفى المرسل لنا من سيادتكم بنظام النقط الابرية لعدد (٢) حالة (منهم واحدة تجفيف بعدد ٧٦ حربة والاخرى التجفيف بعدد ١٢٤ حربة) فانة مرسل لسيادتكم عرض اسعارنا طبقا للاسس الفنية الاتية .

اولا : الأسس الفنية التى بنى عليها العرض:-

١- تقرير النزح الجوفى بنظام النقط الابرية .

٢- الحالة الاولى التجفيف بعدد (٧٦) حربة .

٣- الحالة الثانية التجفيف بعدد (١٢٤) حربة .

ثانيا : الاسعار :-

١- الحالة الاولى التجفيف بعدد (٧٦ حربة) .

أ- منطوق بند النقل والتجهيز بالمقطوعية للحالة الاولى بعدد (٧٦ حربة) :-

١٠٠٠٠٠ (مائة ألف جنية لا غير) قيمة تكلفة نقل وتجهيز وفك دائرة التجفيف بنظام النقط الابرية والفنة تشمل حفر النقط الابرية بنظام التخريم وتوريد وعمل الحراب ومواسير السحب والهيدرات وخطوط الطرد لاقرب مكان وتجهيز وتوصيل الطلمبات الديزل والعمالة الفنية اللازمة للتجهيز وخطوط السحب والطرد بالكامل وطبقاً للأسس الفنية التي بنى عليها العرض.

ب - تكلفة تشغيل نظام التجفيف بالنقط الابرية فى اليوم (٧٦ حربة) .

٥٠٠٠ (فقط خمسة الاف جنية لا غير فى اليوم) قيمة تكلفة تشغيل نظام التجفيف بالنقط الابرية فى اليوم شاملة تشغيل وصيانة نظام التجفيف بالكامل والطلمبات الديزل والعمالة الفنية اللازمة للتشغيل والصيانة ومراقبة مناسيب المياه اثناء التشغيل وطبقاً للأسس الفنية التي بنى عليها العرض.

إدارة الإنشاءات البحرية
٥٩/٥
عمليات وحدة التجفيف

Main Office : 34 Adly St., Cairo Tel. : 23959500 - 23959522
Fax : 23937674 - Cable: Osmason - email address : arabc4@arabcont.com

المركز الرئيسي : ٣٤ ش عدلي - القاهرة تليفون : ٢٣٩٥٩٥٠٠ - ٢٣٩٥٩٥٢٢ فاكس : ٢٣٩٣٧٦٧٤ تلغرافياً : عثماسون

TÜV CERT

٢- **الحالة الثانية التجفيف بعدد (١٢٤ حربة) .**

أ - **منطوق بند النقل والتجهيز بالمقطوعية للحالة الثانية بعدد (١٢٤ حربة) :-**

١٩٠٠٠٠ (مائة وتسعون ألف جنية لا غير) قيمة تكلفة نقل وتجهيز وفك دائرة التجفيف بنظام النقط الابرية والفنة تشمل حفر النقط الابرية بنظام التخريم وتوريد وعمل الحراب ومواسير السحب والهيدرات وخطوط الطرد لاقرب مكان وتجهيز وتوصيل الطلمبات الديزل والعمالة الفنية اللازمة للتجهيز و خطوط السحب والطرد بالكامل وطبقاً للأسس الفنية التي بنى عليها العرض .

ب - **تكلفة تشغيل نظام التجفيف بالنقط الابرية في اليوم (١٢٤ حربة) .**

٩٠٠٠ (فقط تسعة الاف جنية لا غير في اليوم) قيمة تكلفة تشغيل نظام التجفيف بالنقط الابرية في اليوم شاملة تشغيل وصيانة نظام التجفيف بالكامل والطلمبات الديزل والعمالة الفنية اللازمة للتشغيل والصيانة ومراقبة مناسيب المياه اثناء التشغيل وطبقاً للأسس الفنية التي بنى عليها العرض .

ثالثا : شروط خاصة :-

١- تجهيز الموقع بحيث يكون خالي من العوائق وجاهز للعمل .

٢- عمل التصاريح اللازمة لالقاء مياه التجفيف الى أقرب مكان بما لا يتعدى ١٠٠م .ط بمعرفتكم وعلي حسابكم .

٣- عمل التصاريح اللازمة للعمل ليلا ونهارا طوال أيام الأسبوع بما فيها الأجازات والعطلات الرسمية بمعرفتكم وعلى حسابكم .

رابعا : شروط الدفـــــع :-

١- يتم دفع دفعة مقدمه قدرها ٢٥ % من حجم الأعمال المدرج طبقا لعرض اسعارنا .

٢- عمل مستخلصات شهرية لا يتعدي صرفها يوم ٧ من كل شهر .

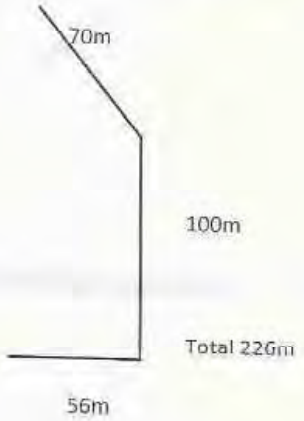
ولسيادتكم جزيل الشكر

مدير وحدة التجفيف
شركة المقاولون العرب
مهندس / اسحاق يعقوب

estimation for wellpoint

Item	Q'ty		spec
1 wellpoint	76	pcs	ϕ50～
2 pitch(dcd)	3	m	
3 centrifugal pump	2	set	lift 18m ϕ125mm
3 depth	3	m	
4 riser pipe			ϕ40
5 vacuum pump	2	set	q =3.2m3/min
generator			50～70KVA ?

Case I:	76 pcs
Case II:	124 pcs



period 12 month
x 2times =
24months

Messrs.': Sanyu Consultants

Sirs:

With regard to your request to estimate the well point system for The New Dayrut Regulators as for 2 cases: No.1- 76 wells and No.2 124 wells, we are pleased to send our quotation engaged with following conditions:

First: Technical bases

1- Received data from you
2- Case No.1: 76 wells
3- Case No.2: 124 wells

Second: Prices

1- Case No.1 76 wells
   - Mobilization, well excavation, supply and install the wells, and connect pumps 100,000 EGP
   - Daily operation and control 5,000 EGP
2- Case No.2 124 wells
   - Mobilization, well excavation, supply and install the wells, and connect pumps 190,000 EGP
   - Daily operation and control 9,000 EGP

Third: Conditions

1- Site free from any obstacles
2- Discharge line not more 100m and all permissions for discharge the water is Sanyu responsibility
3- 24 hours attending site every day until complete the job (any necessary permissions is yours)

Forth: payment condition

1- 25 % contract amount in advance
2- Monthly payment

أركونز انجينيرنج

مهندسون- مقاولون

اعمال متكاملة

السيد المهندس / مدير شركة سانيو الاستشارية للمقاولات

مشروع قناطر ديروط الجديدة

تحية طيبة وبعد ،

بناءا على طلب سيادتكم عرض اسعارنا عن أعمال التجفيف بنظام الحراب لعدد (٢) موقع بالمشروع عالية فأننا نتشرف ان نقدم لسيادتكم أسعارنا وبيانه كالاتـــــى :

اولا : االبيانات الفنية التى وضع بناءا عليها عرض اسعارنا وطبقا لما ورد الينا من سيادتكم :

- تصميم نظام التجفيف بالحراب .
- الموقع الاول بعدد (٧٦) حربة .
- الموقع الثانى بعدد (١٢٤) حربة .
- تكلفة النقل والتجهيز بالمقطوعية لكل موقع على حدى .
- تكلفة الضخ باليوم لكل موقع على حدى بالمقطوعية

ثانيا : جدول الكميات والاسعار

م	بيان الاعمال	الوحدة	الكمية	الفئة	الإجمالى
اولا	الموقع الاول بعدد (٧٦) حربة .				
١	بالمقطوعية تكلفة أعمال تحميل ونقل معدات التجفيف بالنقط الابرية وخطوط الطرد ذهاب وعودة وتجهيز وفك دائرة التجفيف والفئة تشمل نقل الطلمبات الديزل بملحقاتها ومعدات التخريم وتوريد ونقل مواسير السحب السادة والمصافى وذلك لزوم تنفيذ عدد (٧٦) حربة طبقا للتصميم المرسل لنا وايضا تكلفة نقل خط طرد فى حدود ١٥٠ متر طولى وذلك من مخازننا إلى موقع المشروع بديروط وإعادة الوضع لاصلة بعد انتهاء الأعمال وتنفيذ البند طبقا لاصول الصناعة. والفئة محمل عليها تكلفة تركيب والفئة تشمل تجهيز دائرة التجفيف والفك بعد انتهاء الاعمال واعادة الوضع لاصلة وتنفيذ البند طبقا لاصول الصناعة .	مقطوعية	١	١٥٠٠٠٠	١٥٠٠٠٠
٢	باليوم تكلفة تشغيل نظام التجفيف بالحراب لعدد (٧٦) حربة شاملة الطلمبات الديزل بكل ملحقاتها والسولار اللازم لتشغيلها ٢٤ ساعة والعمالة الفنية اللازمة للتشغيل طوال مدة تنفيذ الاعمال وطبقاً للبيانات الفنية التي بنى عليها عرض اسعارنا	يوم	٠	٦٠٠٠	٦٠٠٠

أركونز انجينيرنج

العنوان:٣ شارع دسوق – مصر الجديدة تليفون:٠١٨٢٥٠٢٠٠١ – ٢٩١٤٩٤٢ س.ت:٣٧٠٦٤٣
ب.ض.٣٠٦-١٩٥-٦١٤ اتحاد Email:ebrahimelkomus@hotmail.com
المقاولون:٣٠٣٤٩

أركونز انجينيرنج

مهندسون- مقاولون

اعمال متكاملة

م	بيان الاعمال	الوحدة	الكمية	الفئة	الإجمالى
ثانيا	الموقع الثانى بعدد (١٢٤) حربة .				
١	بالمقطوعية تكلفة أعمال تحميل ونقل معدات التجفيف بالنقط الابرية وخطوط الطرد ذهاب وعودة وتجهيز وفك دائرة التجفيف والفئة تشمل نقل الطلمبات الديزل بملحقاتها ومعدات التخريم وتوريد ونقل مواسير السحب المادة والمصافى وذلك لزوم تنفيذ عدد (١٢٤) حربة طبقا للتصميم المرسل لنا وايضا تكلفة نقل خط طرد فى حدود ١٥٠ متر طولى وذلك من مخازننا إلى موقع المشروع بديروط وإعادة الوضع لاصلة بعد انتهاء الأعمال وتنفيذ البند طبقا لاصول الصناعة. والفئة محمل عليها تكلفة تركيب والفئة تشمل تجهيز دائرة التجفيف والفك بعد انتهاء الاعمال واعادة الوضع لاصلة وتنفيذ البند طبقا لاصول الصناعة .	مقطوعية	١	٢٥٠٠٠٠	٢٥٠٠٠٠
٢	باليوم تكلفة تشغيل نظام التجفيف بالحراب لعدد (١٢٤) حربة شاملة الطلمبات الديزل بكل ملحقاتها والسولار اللازم لتشغيلها ٢٤ ساعة والعمالة الفنية اللازمة للتشغيل طوال مدة تنفيذ الاعمال وطبقاً للبيانات الفنية التي بنى عليها عرض اسعارنا	يوم	٠	١١٥٠٠	١١٥٠٠

شروط خاصة ومكملة لعرض اسعارنا :-

١- تسليمنا الموقع خالي من العوائق وجاهز للعمل .
٢- توفير معدة مناسبة للمساعدة في أعمال تحميل وتعتيق المعدات المساعدة وخطوط الطرد... الخ .
٣- عمل التصاريح اللازمة للعمل ليلا ونهارا طوال مدة تنفيذ الاعمال .
٤-عمل التصاريح اللازمة لتركيب خطوط الطرد وصرف مياه النزح الجوفى ولمسافة لا تزيد عن ١٥٠ متر طولى .
٤- يتم صرف دفعة مقدمه قدرها ٢٥ % من حجم الأعمال المتوقع من عرض اسعارنا .
٦- يتم عمل مستخلصات شهرية بالأعمال التي يتم تنفيذها طبقا لايام التشغيل الفعلية وذلك شهريا .
٧-يتم احتساب القيمة الايجارية اثناء فترات التوقف بنصف القيمة الواردة بعرض اسعارنا .

وتفضلو سيادتكم بقبول فائق الاحترام

المدير التنفيذى

مهندس /

ابراهيم موريد

أركونز انجينيرنج

العنوان:٣ شارع دسوق – مصر الجديدة تليفون:٠١٨٢٥٠٢٠٠١ – ٢٩١٤٩٤٢ س.ت:٣٧٠٦٤٣
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المقاولون:٣٠٣٤٩

ARCONS ENGINEERING
Engineers-Contractors

Messrs.': Sanyu Consultants Inc.
The Project for New Dayrut Regulators

Dears,
We have the honor to submit our quotation for the well point system:

1- Our Quotation based on following technical information:
   - Dewatering by well point sys.
   - Site 1: 76 wells
   - Site 2: 124 wells
   - Transportation and preparation is L. Sum
   - Operation by daily rate

2- BOQ

No	Item	Unit	Unit Price EGP)	Total (EGP)
1	Mobilization of material, equipment, discharge line about 150 m length, wells, and demobilization also, preparation, excavation and installation (76 wells)	L.S	150,000	150,000
2	Daily operation and control for 76 wells	Day	6,000	6,000
3	Mobilization of material, equipment, discharge line about 150 m length, wells, and demobilization also, preparation, excavation and installation (124 wells)	L.S	250,000	250,000
	Daily operation and control for 124 wells	Day	11,500	11,500

3- Offer conditions
   - Handing over site free from any obstacles
   - Provide a suitable equipment for loading, unloading and handling material and pumps at site.
   - Provide necessary permissions for discharging the water to distance not more 150m.
   - 25% expected work amount in advance.
   - Monthly payment based on operation progress.
   - The idle day shall calculated as 50% price of operation price/day.