FC: YEN

Placing of stone LC: US\$ Total estimate for 1 LS US\$=¥120 Work Item Unit | Quantity Basic Price Unit Cost Total Material Labor Equipment Amount in FC LC LC FC LC LC YEN FC FC 1 Material Stone 5.16 96 11,517 m3 19 46 5,573 Clay m3 5.16 288 Wasted stone (25%) m3 0,47 5.16 Masonry cement m3 74.4 65.00 4,836 580,320 65.00 73 8,705 Wasted concrete(1.5%) 1.12 Fuel Concrete mixer 0.6m3 | day 2.851 Generator 45KVA day 24 Truck 8t 80 9.587 day 438 Compactor day Sub Total 5.161 619,279 2 Labor 38.20 4,584 38 Foreman man.day Labor 20 14.30 286 34,320 man.day Concrete mixer 0.6m3 33 33 man.day 3,960 33 33 Generator 45KVA man.day 3,960 Truck 8t 33 33 3,960 man.day 33 33 3,960 Compactor man.day 456 54,744 Sub Total 3 Equipment Concrete mixer 0.6m3 day 6,480 6,480 6,480 1,080 Generator 45KVA day 1,080 1,080 3,480 3,480 Truck 8t day 3,480 day 212 212 212 Compactor 7,560 Sub Total 7,560 Total 7,560 5,617 681,583 Unit Price per m 681,582.65 7,560.00 5,616.86 INDIRECT COST 102,237.40 15% 1,134.00 842.53 TOTAL 8,694 6,459.38 783,820

	2H0604				FC. YEN			
	CANAL BRANCH				LC: US\$	Total estimate f	or 210 m	US\$=¥120
No	Work Item	Unit	Quantity	Basic	Price	Unit	Cost	Total
						Am	ount	in
				FC	LC	FC	LC	YEN
2H060401	Excavation & Disposal	М	210	541	9.50	113,712	1,995.16	353,131
2H060402	Placing of stone	М	210	373	118.33	78,246	24,849.60	3,060,199
	Total					191,958	26.844.76	3,413,330
				Unit Price per r	n	1,600	223.71	28,444

2H060401

	Excavation & Disposal						LC: US\$			Total estimat	e for 210m	US\$≈¥120
No	Work Item	Unit	Quantity			Bas	sic Price			Unit	Cost	Total
				Mate	erial	L	abor	Equi	ipment	Am	ount	in
	11.11.11	1	<u> </u>	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Excavation & Disposal	m3	1300	0	0.00			}	1	0	0	0
	Fuel Backhoe 0.8m3	day	4	0	95				}	. 0	382	45,787
	" Dump truck 10t	day	8	0	105				j	o	840	100,771
	Sub Total	1			•					0	1,221	146,558
2	Labor	1	1			:	* * * * * * * * * * * * * * * * * * *	<b>]</b> .	-			
	Foreman	man.day	4	. }		0	38.20		ļ·	0	153	18,336
	Labor	man.day	16			0	14.30			. 0	229	27,456
	Backhoe 0.8m3	man.day	4	) )		0	33		}	0	132	15,840
	Dump truck 10t	man.day	8			0	33			. 0	264	31,680
	Sub Total									0	514	61,632
. 3	Equipment	1	1	1						[	. [	
	Backhoe 0.8m3	day	- 4					11,280	0	45,120	ol	45,120
	Dump truck 10t	day	8					6,720	) 0	53,760	0	53,760
	Sub Total									98,880	0	98,880
								Total		98,880	1,735	307,070
		·						Unit Price	e per m	470.86	8.26	1,462.24
	INDIRECT COST								15%	70.63	1,24	219.34
	TOTAL									541	9.50	1,682

	2H060402					-	FU: TEN					
	Placing of stone						LC: US\$			Total estimate		US\$=¥120
No	Work Item	Unit	Quantity				sic Price			Unit	Cost	Total
				Ma	aterial	Ĺ	.abor	Equip		Amo		in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Stone	m3	168.0	0	5.16					0	867	104,026
	Clay	m3	60	0	5.16					. 0	310	37,152
	Wasted stone (25%)	m3	4.20	0	5.16			·	<u> </u>	0	22	2.60
	Masonry cement	m3	252.0	0	65.00					0	16,380	1,965,600
	Wasted concrete(1.5%)	m3	3.78	0	65.00	·	1			. 0	246	29,484
	Fuel Concrete mixer 0.6m3	day	9	0	0					0	- 0	
	" Generator 45KVA	day	9	0	24		,			0	214	25,66
	" Truck 8t	day	9	. 0	80					0	719	86,28
	" Compactor	day	9	0	4					0	33	3,94
	Sub Total							·		0	18,790	2,254,74
2	Labor	1			1		1				·	
_	Foreman	man.day	9		·	o	38.20			0	344	41,25
	Labor	man.day	90			0	14.30			0	1,287	154,44
	Concrete mixer 0.6m3	man.day	9		]	· 0	33		ł	0	297	35,64
	Generator 45KVA	man.day	9		ļ ·	0	33			o	297	35,64
	Truck 8t	man.day	9	•	1	0	33			. 0	297	35,64
	Compactor	man.day	9	•		0	33			o	297	35,64
	Sub Total		]							0	2,819	338,25
	Equipment	}	i		l							
Ū	Concrete mixer 0.6m3	day	9					6,480	0	58,320	<i>.</i>	58,32
	Generator 45KVA	day	9					1,080	ŧ	<u>:</u> !	0	9,720
	Truck 8t	day	9					3,480	Į	1	0	31,320
	Compactor	day	9					212	. 0	1,912	0	1,912
	Sub Total									68,040	0	68,040
		1	<del> </del>		<u> </u>		· · · · · · · · · · · · · · · · · · ·	Total		68,040	21,608	2,661,042
			1 to 1					Unit Price pe	er m	324.00	102.90	12,671.63
	INDIRECT COST								15%	48.60	15.43	1,900.74
<del></del>	TOTAL									373	118.33	14,572

## 2H0605

No	CANAL BRANCH type A-2 Work Item	Unit	Quantity	L( Basic P	C: US\$	Total estimate fo		US\$=¥120 Total
	110111	3	Guarratey	5500		Amou		in
· .			· .	FC	LC	FC	LC	YEN
2H060501	Excavation & Disposal	М	270	421.16	8.51	113,712	2,298.76	389,563
2H060502	Crushed Stone for Foundation	М	270	48.95	2.96	13,216	799.99	109,215
2H060503	Lean Concrete	M	270	49.07	14.84	13,248	4,006.74	494,057
2H060504	Reinforcement	М	270	425.76	34.01	114,954	9,183.38	1,216,959
2H060505	Concrete Placing	M	270	730.89	234.70	197,340	63,369.49	7,801,678
2H060506	Backfill Sand & Compaction	М	270	189.78	20.38	51,241	5,503.57	711,669
e de la companya	Total					503,711	85,161.92	10,723,142
:				Unit Price per No.		1,866	315.41	39,715

2H060501

	Excavation & Disposal fo				LC: US\$		Total estimate	US\$=¥120				
No		Unit	Quantity			Ba	asic Price			Unit (	Cost	Total
			1 . [	Mate	erial	L	abor	Equip	ment	Amo	unt	in
			<u> </u>	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material									. ]	Ì	
	Excavation sand	m3	1649	0	0.00						0	0
	Fuel Backhoe 0.8m3	day	4	0	95				ļ ·		382	45,787
	" Dump truck 10t	day	8	0	105			1.0		0	840	100,771
	Sub Total								·	0	1,221	146,558
2	Labor		-								.	
	Foreman	man.day	4			0	38.20			. 0	153	18,336
	Labor	man.day	16			0	14,30	1		0	229	27,456
	Backhoe 0.8m3	man.day	4			0	33			0	132	15,840
	Dump truck 10t	man.day	8			. 0	33			0	264	31,680
	Sub Total							1		0	778	93,312
3	Equipment											
	Backhoe 0.8m3	day	4					11,280	· 0	45,120	o∤	45,120
	Dump truck 10t	day	8					6,720	0	53,760	0	53,760
	Sub Total									98,880	o	98,880
				· · · · · · · · · · · · · · · · · · ·				Total		98,880	1,999	338,750
					·		·	Unit Price p		366.22	7.40	1,254.63
	INDIRECT COST								15%	54.93	1.11	188.19
	TOTAL									421	8.51	1,443

2H060502

	Crushed stone for Found	Manhole				LC: US\$		Total estimate for 270m		US\$=¥120		
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
			]. [_	Mate	erial		abor	Equip	ment	Amo	ount	in
				FC	LC	FC	LC	FC	LC	FC_	LC	YEN
1	Material											
	Crushed stone	m3	72.90	0		•				0	376.16	45,140
	Wasted crushed stone (25%)	m3	18.23	0	5.16		i	,		0	94.04	11,285
	Fuel Backhoe 0.8m3	day	1	0	95	•	1		ļ	, 0	95.39	11,447
	" Tampa 60kg	day	1.0	0	. 2					. 0	1,65	198
	Sub Total				-				ļ	0	567.25	68,069
2	Labor		1	. [	ſ							
	Foreman	man.day	1			0	38.20		Ì	0	38.20	4,584
		man.day	4	1	Ì	0	14.30			· ol	57.20	6,864
	Backhoe 0.8m3	man.day	1	• }		. 0	33			o	33.00	3,960
	Sub Total			}	j					o	128.40	15,408
3	Equipment						ļ		·			
	Backhoe 0.8m3	day	1	ĺ				11,280	0	11,280.00	o	11,280
		day	1	· [ ·			[	212.40	í		1	212
	Sub Total				1		·			11,492	ol	11,492
						<del></del> -		Total		11,492	696	94,970
					-			Unit Price p	er m	42.56	2.58	351.74
	INDIRECT COST								15%	6.38	0.39	52.76
	TOTAL							7	<u></u>	49	2.96	405

2H060503

Lea	n Concrete						LC: US\$			· · · · · · · · · · · · · · · · · · ·	Total estimate	e for 270m	US\$=¥120
No .	Work Item	Unit	Quantity			Bas	ic Price				Unit	Cost	Total
				Mat	terial	L	abor	E	quipm	ent	Amo	unt	in
· 1				FC	LC	FO	. LC	FC		LC	FC	LC	YEN
1 Mate	erial											ļ	
Read	dy mixed concrete	m3	48.60	0	65.00				ŀ		0	3,159	379,080
Wast	ted concrete(1.5%)	m3	0.73	0	65.00						0	47	5,686
Fuel	Concrete mixer 0.6m3	day .	1.50	0	0						.0	. 0	(
"	Generator 45KVA	day	1.5	0	24						0	36	4,277
Sub	Total	1	1								. 0	3,242	389,043
2 Labo	or	· .	} [							!		ł	
Fore		man,day	1.5		Ì	0	38.20	ļ	1	1	0	57	6,876
Labo	or ·	man.day	6	·		0	14.30				0	. 86	10,296
Cond	crete mixer 0.6m3	day	1.50	İ		0	33		1		0	50	5,940
Gene	erator 45KVA	day	1.5			0	33				. 0	50	5,940
Sub	Total								1		. 0	242	29,052
3 Equis	pment						:		-			i	
Cond	crete mixer 0.6m3	day	1.50					į · <del>(</del>	6,480	0	9720	0	9,720
	]	day	1.5						1,080	0	1620	0	1,620
Vibra		day	1.5						120	0	180	0	180
	Total	1									11,520	0	11,520
								Total			11,520	3,484	429,615
								Unit Pri	ce pe	r m	42.67	12,90	1,591.17
IND	IRECT COST									15%	6.40	1.94	238.68
TOT	ΓAL										49	14.84	1,830

2H060504

	Reignforcement				:		LC: US\$			Total estimate	for 270 m	US\$=¥120
No	Work Item	Unit	Quantity				ic Price			Unit (	Cost	Total
				Mat	terial	L	abor	Equip	ment	Amo	unt	in
		İ	·	FC	LC	FC	LC	FC_	LC	FC_	LC	YEN
1	Material								-			
	Reinforcement bar	ton	9.41	0	360.00				<u>.</u>	0	3,388	406,51
	Wasted steel bar(1.5%)	ton	0.14	. 0	360.00					. 0	51	6,09
	Fuel Truck crane 16t	day	7	0	77					. 0	536	64,31
	" Truck 8t	day	7	0	80					0	559	67,10
	" Generator 45KVA	day	7	o	24	.*				0	166	19,95
	Sub Total						2.04			0	4,700	563,98
2	Labor	}.		}								•
	Foreman	man.day	7			O	38.20		·	0	267	32,08
	Labor	man.day	140			. 0	14.30	4	·	-0	2,002	240,24
	Welder	man.day	14	ļ		0	23.09			0	323	38,79
	Truck crane 16t	man.day	7		·	0	33			o	231	27,72
	Truck 8t	man.day	7			0	33	1		이	231	. 27,72
	Generator 45KVA	man.day	7	1		δ	. 33			٥	231	27,72
	Sub Total									0	3.286	394,27
3	Equipment	1		j	•							
	Truck crane 16t	day	7			· ·		9,480	0	66360	0	66,36
	Truck 8t	day	7	1	·		4	3.480	0	24,360	0	24,369
	Generator 45KVA	day	7					1,080	0	7,560	0	7, <b>56</b>
	Bar cutter	day	7	. }	i		•	120	0	840	0	84
	Bar bender	day	7	ļ				120	0	840	0	84
	Sub Total	·								99,960		99,968
						<u></u>		Total		99,960	7,986	1,058,22
								Unit Price pe	er m	370.22	29.58	3,919.3
	INDIRECT COST								15%	55.53	4.44	587.9
	TOTAL						-			426	34.01	4,507

2H060505

	Concrete Placing						LC: US\$		·	Total estimat	e for 270 m	US\$=¥120
No	Work Item	Unit	Quantity			Bas	sic Price			Unit	Cost	Total
		1	] Γ	Ma	terial	Ī.	abor	Equip	ment	Am	ount	· in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Ready mixed concrete	m3	516	. 0	70.00		·	-		0	36,120	4,334,40
	Wasted concrete(5%)	m3	25.80	0	70.00		i .			) 0	1,806	216,72
	Formwork	m2	2,562	0	5.50					) 0	14,091	1,690,92
	Elas tigh board	m2	25	0	5.50			i		0	140	16,76
	Fuel Truck crane 16t	day	10	0	77				}	) 0	766	91,87
	" Concrete mixer 0.6m3	day	10	0	0					0	o	. 1
	" Generator 45KVA	day	10	0	. 24		-	·		0	238	28,51
	Sub Total			· ·						0	53,160	6,379,18
2	Labor		! ·					·				
	Foreman	man.day	10		l .	0	38.20			0	382	45,840
	Labor	man,day	40	•		0	14.30			0	572	68,640
	Truck crane 16t	man.day	10	÷		0	. 33			. 0	330	39,600
	Concrete mixer 0.6m3	man.day	10			٥	33			0	. 330	39,60
	Generator 45KVA	man.day	10			0	33			0	330	39,600
	Sub Total									] · o	1,944	233,280
3	Equipment									]		
	Truck crane 16t	day	10					9,480	l o	94800	. 0	94,80
	Concrete mixer 0.6m3	day	10					- 6,480	0	64,800	0	64,800
	Generator 45KVA	day	10	'	į		·	1,080	0	10,800	. 0	10,800
	Vibrator	day	10					120	· o	1,200	0	1,200
	Sub Total					·				171,600		171,600
								Total		171,600	55,104	6,784,068
							·	Unit Price pe	er m	635.56	204.09	<b>25,126.</b> 18
	INDIRECT COST								15%	95.33	30,61	3,768.93
	TOTAL									731	234.70	28,895

	Backfill sand & Compaction			· .			LC: US\$		Total estimate	US\$=¥120		
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
			[	Mate	rial	Labor		Equip	ment	Am	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material			1								
	Backfill sand	m3	769	o	4.00					o	3,076	369,120
	Wasted Backfill sand (25%)	m3	192.25	0	4.00					0	769	92,280
	Fuel Backhoe 0.8m3	day	3	o	95					0	286	34,340
	" Tire roller 8-20t	day	3	0	55					o	165	19,847
	" Tampa 60kg	day	3	이	2					0	5	594
	Sub Total	1		j	ŀ		·			٥	4,302	516,181
2	Labor			-		'						
	Foreman	man.day	3	1	ļ	0	38.20		·	o	115	13,752
	Labor	man.day	12	· ]		0]	14.30			o	172	20,592
	Backhoe 0,8m3	man.day	3			o	33			o	99	11,880
	Tire roller 8-20t	man.day	3			o	33	•		0	99	11,880
	Sub Total			1		ļ		* -	J	0	484	58,104
3	Equipment			1	.					1		
	Backhoe 0.8m3	day	3	1	j			11,280	0	33,840	0	33,840
	Tire roller 8-20t	day	3				.	3,360	0	10,080	0	10,080
	Tampa 60kg	day	3					212	0	637	0	637
	Sub Total			Ì						44,557	0	44,557
								Total	·	44,557	4,786	618,842
			·					Unit Price po	er No.	165.03	17.72	2,292.01
	INDIRECT COST								15%	24.75	2.66	343.80
	TOTAL									190	20.38	2,636

2H0606

	CATCH BASIN			<del> </del>	FO: 022	Total estimate to	US <b>3=</b> ¥120	
No	Work Item	Unit	Quantity	Basic	Price	Unit (	Cost	Total
						Amo	unt	in
1				FC	LC	FC	LC	YEN
2H060601	Excavation & Disposal	LS	1	56,856	997.58	56,856	997.58	176,565
2H060602	Placing of stone	Ls	1	26,082	11,026.14	26,082	11,026,14	1,349,219
	Total					82,938	12,023.72	1,525,784
				Unit Price per L	.S	82,938	12,023.72	1,525,784

2H060601

	Excavation & Disposal						LC: US\$			Total estimat	e for 1 LS	US\$=¥120
No	Work Item	Unit	Quantity			В	asic Price			Unit	Cost	Total
		1 .	. !	Mat	erial		Labor	Equ	ipment	Am	ount	. in
·				FC	LC	FC	LC	FC	LC	FC	LC	YEN
. 1	Material	1										
	Excavation & Disposal	m3	615	0	0.00	]	]		1	0	0	C
	Fuel Backhoe 0.8m3	day	2	. 0	95					0	191	22,894
	" Dump truck 10t	day	4.0	0	105	· ·	1			0	420	50,386
	Sub Total						1	1 .		0	611	73,279
2	Labor	1	}	. *		ľ						
·	Foreman	man.day	2		}	] (	38.	20		D	76	9,168
	Labor .	man.day	8			- (	14.0	30		. 0	114	13,728
	Backhoe 0,8m3	man.day	2	1	1	. 1	o . :	33		0	66	7,920
	Dump truck 10t	man day	4			. (	ा	33	·	0	132	15,840
1	Sub Total									0	257	30,816
- 3	Equipment	.					}		1	}		•
	Backhoe 0.8m3	day	2					11,280	C	22,560	0	22,560
	Dump truck 10t	day	4					6,720	C	26,880	0	26,880
	Sub Total					Ĺ				49,440	0	49,440
								Total		49,440	867	153,538
								Unit Price	e per LS	49,440.00	867.46	153,535.20
	INDIRECT COST								15%	7,416.00	130.12	23,030,28
	TOTAL									56,856	997.58	176,565

# LA UNION PORT DEVELOPMENT PROJECT 2H060602 Placing of stone

	2HU6U6U2						FO: 1EN					
	Placing of stone						LC: US\$			Total estimat		US\$=¥120
No	Work Item	Unit	Quantity			Bas	ic Price	<u></u>		Unit		Total
		1			aterial		abor	Equip			ount	in
		<u> </u>		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material								}			
İ	Stone	m3	58.0	. 0	5.16	ľ			İ	0	299	35,914
	Clay	m3	20	0	5,16		٠		] .	0:	103	12,322
	Wasted stone (25%)	m3	1.45	. 0	5.16					.0	7	898
	Ready mixed concrete	m3	120,0	0	65.00			ĺ	,	0	7,800	936,000
	Wasted concrete(1.5%)	m3	1.80	0	65.00					. 0	117	14,040
,	Fuel Concrete mixer 0.6m3	day	3	0	0			·		0	0	•
	" Generator 45KVA	day	3	0	24		,		ì	0	71	8,554
	" Truck 8t	day	3	0	80			[		0	240	28,760
	" Compactor	day	3	0	4					0	11	1,314
	Sub Total									0	8,648	1.037,802
- 2	Labor										*	
	Foreman	man.day	3			. p	38.20			0	115	13,752
	Labor	man,day	30			o	14.30			0	429	51,480
	Concrete mixer 0.6m3	man.day	1 1			0	33	j		0	99	11,880
	Generator 45KVA	man.day	3			0	. 33			0	99	11,880
	Truck 8t	man.day	3			ס	33			0	99	11,880
	Compactor	men.day	1			. 0	33			0	99	11,880
	Sub Total									0	940	112,752
9	Equipment				}			}				
	Concrete mixer 0.6m3	day	3					6,480		19,440	o	19,440
	Generator 45KVA	day	3		i		·	1,080	(	3,240	0	3,240
	Truck 8t	day	3					3,480	1		. 0	10,440
11.	Compactor	day	3					212	1	1 .	0	637
	Sub Total	uay	"		1					22,680	0	22,680
L	Jour Forai		· · · · · · · · · · · · · · · · · · ·	<u> </u>			L	Total	<u> </u>	22,680	9,588	1,173,234
			*					Unit Price p	er LS	22,680.00	9,587.95	1,173,233.52
	INDIRECT COST	:	<del></del>			<u></u>	·		15%		1,438.19	175,985.03
-	TOTAL			····				•		26,082	11,026.14	1,349,219

2H07

		DIVERSION CANAL TYPE B				LC: US\$	Total estimate f	or 775m	US\$=¥120
	No	Work Item	Unit	Quantity	Basic	Price	Unit	Cost	Total
							Am	ount	in
L			<u> </u>		FC	LC	FC	LC	YEN
	2H0701	Excavation & Disposal	М	775	734	12.87	568,560	9,975.79	1,765,655
1.	2H0702	Placing of stone	M	775	67	113.12	52,164	87,668.97	10,572,440
L		Total	<u> </u>				620,724	97,644.76	12,338,095
					Unit Price per n	1	801	125.99	15,920

	Excavation & Disposal				•	**	LC: US\$	· .		Total estimate	e for 775m	US\$=¥120
No	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
				Mate	rial	L	abor	Equi	pment	Amo	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material								] 		-	
	Excavation & Disposal	m3 .	4791	0	0.00	į				0	0	(
	Fuel Backhoe 0.8m3	day	20	0	95					0	1,908	228,936
	" Dump truck 10t	day	40	0	105				•	) 0	4,199	503,856
	Sub Total									0	6,107	732,792
2	Labor											
	Foreman	man.day	20			0	38.20				764	91,680
	Labor	man.day	80	l i		0	14.30	i ·		0	1,144	137,280
	Backhoe 0.8m3	man.day	20			0	33			0	660	79,200
	Dump truck 10t	man.day	40		:	0	33	İ		0	1,320	158,400
	Sub Total							ļ		0	2,568	308,160
3	Equipment		ļ									
	Backhoe 0.8m3	day	20					11,280	·	225,600	0	225,600
	Dump truck 10t	day	40					6,720	0	268,800	0	268,800
	Sub Total									494,400	0	494,400
								Total		494,400	8,675	1,535,352
							·	Unit Price	e per m	637.94	11.19	1,981,10
	INDIRECT COST								15%	95.69	1.68	297.16
	TOTAL						· · · · · ·			734	12.87	2,278

E. C. IICH I C. II	DE LECT	 	
2H0702	4 4		
Placing of stone			

FC: YEN LC: US\$ Total estimate 775 m US\$=¥120 Basic Price Unit Cost Total Work Item Unit Quantity Amount in Material Labor Equipment FC LC FC LC FC LÇ FC LC YEN 1 Material Stone mi3 616 5.16 3,179 381,427 1,089 130,651 Clay mi3 211 5.16 9.536 79 Wasted armor stone (25%) mi3 15.40 5.16 672,000 Sodding m2 7000.00 0.80 5,600 60,060 7,207,200 Ready mixed concrete m3 924.00 65.00 Wasted concrete(1.5%) 13.86 65,00 901 108,108 Fuel Concrete mixer 0.6m3 day Generator 45KVA 24 143 17.107 day Truck 8t 80 479 57,521 day Truck 8t 22 2,628 day 71,551 8,586,178 Sub Total 2 Labor 458 55,008 Foreman man.day 38.20 14.30 411,840 Labor man.day 240 3,432 23,760 Concrete mixer 0.6m3 33 198 man.day 33 198 23,760 Generator 45KVA man,day 23,760 Truck 8t man.day 33 .198 Truck 8t man day 33 198 23,760 4,682 561,888 Sub Total 3 Equipment Concrete mixer 0.6m3 6,480 38,880 38,880 day 6.480 6,480 Generator 45KVA day 1,080 20,880 20,880 Truck 8t 3,480 day 212 1,274 1,274 Concrete mixer 0.6m3 day 45,360 45,360 Sub Total Total 45,360 76,234 9,193,426 Unit Price per m 58.53 98.37 11,862.49 1,779.37 INDIRECT COST 15% 8,78 14.75 113.12 TOTAL 13,642

2H0703

	OUTLET		·	LC	): US\$	Total estimate for	1 LS	US\$=¥120
No	Work Item	Unit	Quantity	Basic Pr	ice	Unit C	ost	Total
						Amou	nt	in
]				FC	LC	FC	LC	YEN
2H070301	Excavation & Disposal	LS	1	19,900	349.15	19,900	349.15	61,798
2H070302	Placing of stone	LS	. 1	5,216	3,417.40	5,216	3,417.40	415,304
	Total		* .			25,116	3,766.55	477,102
				Unit Price per LS		25,116	3,766.55	477,102

2H070301

	Excavation & Disposal	· .					LC: US\$			Total estimate	e for 1 LS	US\$=¥120
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
				Mate	erial	L	abor	Equi	pment	Am-	ount	in
L				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
ļ	Excavation & Disposal	m3	105	0	0.00					.0	0	0
	Fuel Backhoe 0.8m3	day	0.7	0	95					0	67	8,013
	" Dump truck 10t	day	1.4	0	. 105					0	147	17,635
ļ	Sub Total	1 .		i					· ·	) · 0	214	25,648
2	Labor	} .	J	· ]			·					
	Foreman	man.day	0.7			0	38.20			0	27	3,209
	Labor	man.day	2.8	1		. 0	14.30			. 0	40	4.805
	Backhoe 0.8m3	man.day	0.7			σ	33			0	23	2,772
	Dump truck 10t	man.day	1.4	<b> </b>		0	33			0	46	5,544
	Sub Total	1	<u> </u>				:			o	90	10,786
3	Equipment		1 1									į
1	Backhoe 0.8m3	day	0.7					11,280	0	7,896	o	7.896
	Dump truck 10t	day	1.4			,		6,720	. 0	9,408	ol	9,408
	Sub Total									17,304	o	17,304
								Total		17,304		53,737
							·	Unit Price	per m	17,304.00	303.61	53,737,32
	INDIRECT COST								15%	2,595.60	45.54	8,060,60
	TOTAL				_					19,900	349.15	61,798

# LA UNION PORT DEVELOPMENT PROJECT 2H070302 Placing of stone

	20070302						TO. TELL				•	
	Placing of stone						LC: US\$		· · · · · · · · · · · · · · · · · · ·	Total estimat		US\$=¥12
Νo	Work Item	Unit	Quantity			Ва	sic Price			Unit	Cost	Totaí
				Ma	terial		abor	Equip	ment	Amo	ount	in
		1		FC	LC_	FC	LC	FC	LC	FC	LC	YEN
1	Material			· · · · · · · · · · · · · · · · · · ·	,							
	Rubble Stone	m3	11.2	0	5.16					o	58	6,9
	Clay	m3	6	0	5.16			ş.,		0	31	3.7
	Wasted stone (25%)	m3	0.28	0	5.16		'			0	1	
	Masonry cement	m3	37,9	0	. 65.00					0	2,464	295,6
	Wasted concrete(1.5%)	m3	0.57	0	65.00					0	37	4.4
	Fuel Concrete mixer 0.6m3	day	0.6	0	0	İ			,	0	0	
	" Generator 45KVA	day	1	0	24					0	14	1,7
	" Truck 8t	day	. 1	0	80	ļ				0	48	5,
	" Compactor	day	1	0	4					0	2	2
	Sub Total									0	2,655	318,
2	Labor	İ	]		·	l ·			·			
	Foreman	man.day	0,6			[ c	38.20			0	23	2.
	Labor	man.day	15				14.30			0	215	25,
	Concrete mixer 0.6m3	man.day	0.6			0	33			0	20	2,
	Generator 45KVA	man.day	0.6			Į c	33			0	20	2,
	Truck 8t	man.day	0.6			l c	33			0	20	2,
	Compactor	man.day	0.6			i c	33			0	20	2,
	Sub Total	1								0	317	37.
3	Equipment							8				-
	Concrete mixer 0.6m3	day	0.6					6,480	0	3,888	0	3,8
	Generator 45KVA	day	0.6	•			1	. 1,080	0	648	0	•
	Truck 8t	day	0.6					3,480	. 0	2,088	. 0	2.
	Compactor	day	0,6					212	0	127	. 0	•
	Sub Total			· ·			<u> </u>		<u> </u>	4,536	0	4,
,	*.							Total		4,536	2,972	361,
			· · · · · · · · · · · · · · · · · · ·				<u> </u>	Unit Price p		4,536.00	2,971.65	361,133
	INDIRECT COST								15%		445.75	54,170
	TOTAL									5,216	3,417.40	415,3

2H0704

	CANAL BRANCH type B		<u>.</u>		LC: US\$	Total estimate for	or 365 m	US\$=¥120	
No	Work Item	Unit	Quantity	Basic	Price	Unit C	Cost	Total	
*.						Amou	unt	in .	
				FC	LC	FC	LC .	YEN	
2H070401	Excavation & Disposal	M	365	421.16	8.51	153,722	3,107.58	526,631	
2H070402	Crushed Stone for Foundation	М	365	48.95	2.96	17,866	1,081.47	147,643	
2H070403	Lean Concrete	М	365	49.07	14.84	17,909	5,416.52	667,892	
2H070404	Reinforcement	M.	365	425.76	34.01	155,401	12,414.56	1,645,148	
2H070405	Concrete Placing	М	365	730.89	234.70	266,774	85,666.16	10,546,713	
2H070406	Backfill Sand & Compaction	M	365	189.78	20.38	69,270	7,440.01	962,071	
<u> </u>	Total .					680,943	115,126.30	14,496,099	
				Unit Price per No.		2,522	426.39	53,689	

	Excavation & Disposal	for Canal b	ranch				LC: US\$			Total estimate	for 270m	US\$=¥120
No	Work Item	Unit	Quantity			Ва	sic Price			Unit C	Cost	Total
				Mate	erial	ليا لي	abor	Equip	ment	Amo	unt	in
٠				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Excavation sand	m3	1649	0	0.00					0	0	0
	Fuel Backhoe 0.8m3	day	4	0	95					. 0	382	45,787
	" Dump truck 10t	day	8	0	105	ŀ					840	100,771
]	Sub Total				<b>,</b>	j	•			0]	1,221	146,558
2	Labor									İ		Ĭ
	Foreman	man.day	4			Ø	38.20	lar i		0	153	18,336
	Labor	man.day	16			0	14,30	1			229	27,456
	Backhoe 0.8m3	man.day	4			. 0	33	,		0	132	15,840
	Dump truck 10t	man.day	8		1	0	33			이	264	31,680
	Sub Total				· ·			ľ		.0	778	93,312
3	Equipment					•						
	Backhoe 0.8m3	day	4					11,280	0	45,120	0	45,120
	Dump truck 10t	ďay	8			Ì		6,720	0	53,760	0	53,760
	Sub Total							<u> </u>		98,880	0	98,880
								Total		98,880	1,999	338,750
								Unit Price pe		366.22	7.40	1,254.63
	INDIRECT COST								15%	54.93	1.11	188.19
	TOTAL									421	8.51	1,443

2H070402

	Crushed stone for Found						LC: US\$				Total estimate		US\$=¥120
Nο	Work Item	Unit	Quantity				asic Price	,			Unit	Cost	Total
			}. <u>L</u>	Ma	terial		Labor	<u> </u>	Equipn	nent	Amo	ount	in
			<u> </u>	FC	LC	FC	LC	FC		LC	FC	LC	YEN
1	Material							[					
. !	Crushed stone	m3 ·	72.90	0	5 16		1	1	{		ū	376.16	45,140
:	Wasted crushed stone (25%)	m3	18.23	0	5.16		ļ		,		0	94.04	11,285
	Fuel Backhoe 0.8m3	day	1	. 0	95				ł		0	95.39	11,44
	" Tampa 60kg	day	1.0	o	2		1				. 0	1.65	198
	Sub Total		]	. }	j				1		0	567.25	68,06
2	Labor							,	1			1	
	Foremen	man.day	1				0 38.20				0	38.20	4,58
	Labor	man.day	4		[		0 14,30		[		0	57.20	6,86
	Backhoe 0.8m3	man.day	- 1		ł		0 33				0	33.00	3,96
	Sub Total			· · · · · · · · · · · · · · · · · · ·			ļ				0	128.40	15,40
3	Equipment			į	1		1						
	Backhoe 0.8m3	day	1	•					11,280	0	11,280.00	اه	11,28
	Tampa 60kg	day	1	1				2	212.40	. 0	212.40	o o	213
	Sub Total				j		] .		]		11,492	٥	11,49
								Total			11,492	696	94,97
		· · · · · · · · · · · · · · · · · · ·						Unit Pr	ice pe	r m	42.56	2.58	351.74
	INDIRECT COST									15%	6.38	0.39	52.76
	TOTAL										49	2.96	405

2H070403

	Lean Concrete						LC: US	\$			Total estimat	e for 270m	US\$=¥120
Νo	Work Item	Unit	Quantity			В	asic Price				Unit	Cost	Total
				Mate	erial		Labor		Equip	ment	Amo	ount	in
		٠.		FC	LC	FC	LC	)	FC	LC	FC	LC	YEN
1	Material												
	Ready mixed concrete	m3	48.60	0	65.00		İ				0	3,159	379,080
	Wasted concrete(1.5%)	m3	0.73	0	65.00						0	47	5,686
	Fuel Concrete mixer 0.6m3	day	1.50	. 0	. 0			•		Į	0	0	6
	" Generator 45KVA	day	1.5	0	24					1	0	36	4,277
	Sub Total			ļ				ł			0	3,242	389,043
2	Labor	1	}	1	ļ			1			1		
	Foreman	man.day	1.5				이	38.20		1	0	57	6,876
	Labor	man.day	6				이 .	14.30			0	86	10,296
	Concrete mixer 0.6m3	day	1.50		·		이	33			0	50	5,940
	Generator 45KVA	day	1.5		1		0	33			0	50	5,940
	Sub Total	i		Ì	İ		1				0	242	29,052
3	Equipment	ĺ		. ]					-		1		
	Concrete mixer 0.6m3	day	1.50					j	6,480	0	9720	0 .	9,720
•	Generator 45KVA	day	1,5					- 1	1,080	0	1620	0	1,620
	Vibrator	day	1,5	Į			j	}	120	0	180	t t	180
	Sub Total		·							<u> </u>	11,520		11,520
									Total		11,520		429,615
	· ·								Unit Price p	er m	42.67	12.90	1,591.17
	INDIRECT COST									15%	6.40	1.94	238.68
	TOTAL										49	14.84	1,830

	Reignforcement						LC: US\$	·		Total estimate	for 270 m	US\$=¥120
No	Work Item	Unit	Quantity			Bas	ic Price			Unit	Cost	Total
				Ma	terial	L	abor	Equipr	nent	Amo	ount	ìn
		<u>.</u>		FC	20	FC	LC	FC	LC	FC	LC	YEN
1	Material			-								
	Reinforcement bar	ton	9,41	0	360.00					. 0	3,388	406,51
	Wasted steel bar(1.5%)	ton	0,14	0	360.00				_	0	. 51	6,09
	Fuel Truck crane 16t	day	7	0	. 77					이	536	64,31
	" Truck 8t	day	7	0	80				,	0	559	67,10
	" Generator 45KVA	day	7	0	24					0	166	19,95
	Sub Total	1						•		0	4,700	563,98
2	Labor	j								į		
	Foreman	man.day	7			. 0	38.20			0	267	32,08
	Labor	man.day	140	÷		D	14.30			0	2,002	240,24
	Welder	man.day	14			Ď	23.09			0	323	38,79
	Truck crane 16t	man.day	7			Ū	33			0	231	27,72
	Truck 8t	man.day	7			0	33			0	231	27,72
	Generator 45KVA	man.day	7		•	0	. 33			0	231	27.72
	Sub Total									0	3,286	394, <b>2</b> 7
3	Equipment	1									1	
	Truck crane 16t	day	7				·	9,480	. 0	66360	. 0	66,36
	Truck 8t	day	7					3,480	0	24,360	0	24,36
	Generator 45KVA	day	7					1,080	0	7,560	С	7,56
	Bar cutter	day	7				·	120	0	840	0	84
	Bar bender	day	7		İ		·	120	0	840	. 0	84
	Sub Total		L							99,960	0	99,96
								Total		99,960	7,986	1,058,22
							·	Unit Price pe	er m	370.22	29.58	3,919.3
	INDIRECT COST								15%	55.53	4.44	587.9
	TOTAL								-	426	34.01	4,50

	Concrete Placing				•		LC: US\$		·	Total estimat	e for 270 m	US\$=¥120
No	Work Item	Unit	Quantity			Bas	ic Price			Unit	Cost	Total
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Ma	aterial	L	abor	Equip	nent	Am	ount	in
	·			FC	LC	FC	LC	FC	LC	FC	LC	YEN
. 1	Material	T									·	( <del>-</del>
	Ready mixed concrete	m3	516	. 0	70.00			, i		0	36,120	4,334,400
	Wasted concrete(5%)	m3	25.80	. 0	70.00					0.	1,806	216,720
	Formwork	m2	2,562	. 0	5.50					0	14,091	1,690,920
	Elas tigh board	m2	25	0	5.50					0	140	16,764
	Fuel Truck crane 16t	day	10	0	77		•			0	. 766	91,872
	" Concrete mixer 0.6m3	day	10	. 0	0					] 0	0	. 0
	" Generator 45KVA	day	10	a	24					0	238	28,512
	Sub Total	,								0	53,160	6,379,188
•	Labor	ĺ						·				
2	Foreman	man.day	10			ם	38.20			0	382	45,840
	Labor	man.day	1			ď	14.30			o	572	68,640
	Truck crane 16t	man.day	1 1			n	33			0	330	39,600
	Concrete mixer 0.6m3	man.day	1		·	'n	33			l	330	39,600
		man.day	1 1			n	33			"	330	
	Generator 45KVA	man.day	'0		[	Ŭ	33			أ أ	1,944	233,280
	Sub Total	}						·		Ì	(,2-1)	
3	Equipment	<b>.</b>						0.400		94800	n	94,800
	Truck crane 16t	day	10					9,480			. 0	64,800
	Concrete mixer 0.6m3	day	10		ļ	,		6,480		64,800	0	
	Generator 45KVA	day	10		<b>}</b>		·	1,080		10,800		10,800
	Vibrator	day	10					120	U	1,200	[ ·	1,200
	Sub Total	<u> </u>					<u></u>		L	171,600		171,600
					4.			Total	er en er	171,600		6,784,068
							-	Unit Price po		635.56		25,126.18
	INDIRECT COST		<del></del>					<del> </del>	15%			3,768.93
	TOTAL								-	731	234.70	28,895

_	Backfill sand & Compact	ion					LC: US\$		· ·	Total estimate	for 270 m	US\$=¥120
No	Work Item	Unit	Quantity			В	asic Price			Unit	Cost	Total
				Mate	erial	L	abor	Equip	ment	Am	ount	in
			[	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
Ì	Backfill sand	m3	769	- 0	4.00			) .		o	3,076	369,120
	Wasted Backfill sand (25%)	m3	192.25	. 0	4.00	8	İ	Ì		o	769	92,280
	Fuel Backhoe 0.8m3	day	3	0	95				·	. 0	286	34,340
	" Tire roller 8-20t	day	3	o]	55			]		o	165	19,847
	" Tampa 60kg	day	3	0	2			1		0	5	594
	Sub Total						]			oļ	4,302	516,181
2	Labor	1.		}	. }		}	Į.		Ī	1	
	Foreman	man,day	3			Ø	38.20			o	115	13,752
	Labor	man,day	12	1		Ø	14.30			ol	172	20,592
	Backhoe 0.8m3	man.day	3		}	0	33	l' .		ol	99	11,880
	Tire roller 8-20t	man.day	3	į		ď	33			ol	99	11,880
	Sub Total									ol	484	58,104
3	Equipment	1 1			ĺ			ĺ				
	Backhoe 0.8m3	day	3	1				11,280	0	33,840	o	33,840
	Tire roller 8-20t	day	3					3,360	o	10,080	. 0	10,080
	Tampa 60kg	day	3	{				212	o	637	0	637
	Sub Total						·			44,557	0	44,557
								Total		44,557	4,786	618,842
	·							Unit Price pe	er No.	165.03	17.72	2,292.01
	INDIRECT COST								15%	24.75	2.66	343,80
	TOTAL				***************************************					190	20.38	2,636

2H08

FC: YEN

МΔ	NHOL	F TYPE	1

LC: US\$

	MANHOLE TYPE 1			LC	: US\$	Total estimate for	· 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity	Basic Pri	ce	Unit Co	ost	Total
		·				Amou	nt	in
				FC	LC	FC	LC_	YEN
2H0801	Excavation & Disposal	Nos.	10	2,843	57.47	28,428	574.69	97,391
2H0802	Crushed Stone for Foundation	Nos.	10	396	11.86	3,965	118.57	18,194
2H0803	Lean Concrete	Nos.	10	115	30.84	1,148	308,41	38,157
2H0804	Reinforcement	Nos.	10	6,569	529.93	65,688	5,299.27	701,600
2H0805	Corner Angle	Nos.	10	563	57.12	5,630	571.16	74,169
2H0806	Concrete Placing	Nos.	10	4,375	554.92	43,746	5,549.24	709,655
2H0807	Backfill Sand & Compaction	Nos.	10	3,416	221.62	34,161	2,216.21	300,106
	Total		· L_			182,756	14,637,55	1,939,272
			Un	t Price per No		18 277	1.463.75	193.927

2H0801

	Excavation & Disposal fo	r Manhole	9				LC: US	\$			Total estimate	for 10 Nos	US <b>\$=</b> ¥1.
10	Work Item	Unit	Quantity			Ba	asic Pric	ce			Unit	Cost	Total
- }				Mate	erial		abor		Eguipa	nent	Amo	ount	ín
				FC	LC	FC	LC	<u> </u>	FC.	LC	FC	LC	YEN
1	Material							[					
Ì	Excavation sand	m3	321	0	0.00			1	1		0	o	
	Fuel Backhoe 0.8m3	day	1	0	95			l			0	95	11,
	" Dump truck 10t	day	2.0	0	105						0	210	25,
-	Sub Total										. 0	305	36,
2	Labor	].		j				j			]		
	Foreman	man.day	1	-		G	[	38.20			0	38	4,
	Labor	man.day	4			Ø		14.30	. [		0	57	6,
- 1	Backhoe 0,8m3	man,day	1	ĺ		. 0		33	. [		0	33	3,
1	Dump truck 10t	man.day	2			0		33			0	66	7
	Sub Total	1		1			}	-	Į.		0	194	23
3	Equipment	1		1					ļ				
Į	Backhoe 0.8m3	day	1 1	1	]			.	11,280	0	11,280	0	11
1	Dump truck 10t	day	2						6,720	. 0	13,440	0	13,
_]	Sub Total		<u> </u>		<u>l</u>				<u> </u>		24,720	0	24
	· ·								Total		24,720	500	84
	<u></u>								Unit Price pe		2,472.00	49.97	8.46
	INDIRECT COST		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u>.</u>						15%	370.80	7.50	1,27
	TOTAL									•	2,843	57,47	9,

2H0802

	Crushed stone for Found	lation o	Manhole				LC: US\$			Total estimate	for 10 Nos	US\$=¥120
Νo	Work Item	Unit	Quantity			Bas	sic Price			Unit C	ost	Total
			ΙΓ	Mate	erial	L	abor	Equipn	nent	Amou	int	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material										}	
•	Crushed stone	m3	5.50	0	5.16		•			.0	28.38	3,406
	Wasted crushed stone (25%)	m3	1.38	0	5.16					. 0	7.10	851
	Fuel Backhoe 0.8m3	day	0.3	0	95			]. ]		0	28.62	3,434
	" Tampa 60kg	day	0.3	0	2					0	0.50	59
	Sub Total				į					0	64.59	7,750
	Labor			ĺ				. 1			1	4
	Foreman	man.day	0.3			٥	38.20			o	11.46	1,375
:	Labor	man.day	1 1		i	0	14.30			0	17.16	2,059
	Backhoe 0.8m3	man.day	1			0	33			0	9.90	1,188
	Sub Total	ĺ					:				38.52	4,622
3	Equipment						·					
	Backhoe 0.8m3	day	0.3		I			11,280	(	3,384.00	o	3,384
	Tampa 60kg	day	0.3					212.40	(	63.72	0	64
	Sub Total		1							3,448	0	3,448
			*					Total		3,448	103	15,821
	e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	-						Unit Price pe	r No.	344.77	10.31	1,582,06
	INDIRECT COST								159	51,72	1,55	237.31
	TOTAL									396	11.86	1,819

2H0803

_	Lean Concrete		<u> </u>						LC: US\$					Total estimate	for 10 Nos	US\$=¥120
Nο	Work Item	Unit	Quantity				E	}as	ic Price					Unit	Cost	Total
i		} · ·	[		Mat	terial		Le	abor		Equip	nent		Amo	unt	in
				FC		LC	FC		LC		FC		LC	FC	LC	YEN
1	Material														. 1	
	Ready mixed concrete	m3	3.70	:	0	65.00		- 1						0	241	28,86
- :	Wasted concrete(1.5%)	m3	0.06		0	65.00		- 1						0	4	43
	Fuel Concrete mixer 0.6m3	day	0.13		0	0	* .							0	0	1
	" Generator 45KVA	day	0.13		0	24		- 1						o	3	37
į	Sub Total				- [			ļ		Ì.,				. 0	247	29.66
2	Labor		}		ļ								•	)		
	Foreman	man.day	0.13					이	38.20					o	5	59
	Labor	man.day	0.52					0	14,30					o	7	89:
	Concrete mixer 0.6m3	day	0.13		- 1			이	33					0	4	51:
	Generator 45KVA	day	0.13					이	33					0	4	. 51
	Sub Total	1			1			- 1						0	21	2,51
3	Equipment	1			ľ	·		- 1								
•	Concrete mixer 0.6m3	day	0.13					-			6,480		0	842.4	0	- 84
	Generator 45KVA	day	0.13		ŀ	. j		J			1,080		0	140.4	o	141
	Vibrator	day	0.13		- 1	1		-			120		0	15.6	0	16
	Sub Total													998	0	998
										Total				998	268	33,180
						·				Unit I	Price pe	r No	).	99.84	26.82	3,317,98
	INDIRECT COST			·									15%	14.98	4.02	497,70
	TOTAL													115	30.84	3,816

2H0804

	Reignforcement	•		1.0	·		LC: US\$			Total estimat	e for 10 Nos	US\$=¥120
Νo	Work Item	Unit	Quantity			Bas	ic Price			Unit	Cost	Total
		1	1	Ma	aterial	L	abor	Equip	ment	Am	ount	in
•				FC	LC	FC	LO	FC	LC	FC	LC	YEN
1	Material											
	Reinforcement bar	ton	5.50	0	360.00					0	1,980	237,600
	Wasted steel bar(1.5%)	ton	0.08	. 0	360.00		8 14 J. T.			0	30	3,564
	Fuel Truck crane 16t	day	4	0	77				]	0	306	36,749
	" Truck 8t	day	4	0	80					0	320	38,347
	" Generator 45KVA	day	4	0	24			* . *		0	95	11,405
	Sub Total							'		0	2,731	327,665
2	Labor				ŀ							
	Foreman	man.day	4			0	38.20			0	153	18,336
	Labor	man.day	80			ס	14.30			0	1,144	137,280
	Welder	man.day	8			0	23.09			0	185	22.1 <del>6</del> 6
	Truck crane 16t	man.day	4			o	33			0	132	15,840
	Truck 8t	man.day	4			ס	33			0	132	15.840
	Generator 45KVA	man.day	4	•		. 0	33			0	132	15,840
	Sub Total	:								0	1,878	225,302
3	Equipment											
	Truck crane 16t	day	4	,				9,480	. 0	37920	. 0	37,920
	Truck 8t	day	4					. 3,480	. 0	13,920	0	13,920
	Generator 45KVA	day	4					1,080	. 0	4,320	0	4.320
	Bar cutter	day	4		1			120	0	480	0	480
•	Bar bender	day	4		· .	.		120	0	480	0	480
	Sub Total									57,120	0	57,120
								Total		57,120		610,087
					·		·	Unit Price po	er No.	5,712.00	460.81	61,008,72
	INDIRECT COST								15%	856.80	69.12	9,151,31
	TOTAL									6,569	529.93	70,160

FC: YEN

Corner Angle for Manhole LC: US\$ Total estimate for 10 Nos US\$=¥120 Basic Price Unit Cost Work Item Total No Unit Quantity Equipment Amount in Material Labor LC LC FC FC FC FC LC LC YEN 1 Material 266.00 96 11,491 Coner angle 0.36 kg 230 Wasted corner angle(2%) 5.32 0.36 kg 234 Miscellaneous L.S. 1.95 9,587 Fuel Truck 8t day 80 24 2,851 Generator 45KVA day 1.0 203 24,393 Sub Total 2 Labor Foreman 38.20 4,584 man.day Labor 14.30 143 17,160 man.day 10 5,542 23.09 46 Welder man.day 33 33 3,960 Truck 8t man.day 33 3,960 33 Generator 45KVA man.day 293 35,206 Sub Total 3 Equipment Truck 8t day 3,480 3,480 3,480 Generator 45KVA 1,080 1.080 day 1,080 240 Welder 300A 120 240 day L.S. 96 96 96 Other equipment 4,896 4,896 Sub Total 4,896 Total 497 64,495 49.67 Unit Price per No. 489.60 6,449,50 7.45 967.43 INDIRECT COST 73.44 TOTAL 563 57.12

	ZHU8U6						FU. TEN					
	Concrete Placing		<u> </u>				LC: US\$	· · · · · · · · · · · · · · · · · · ·		Total estimat		US\$=¥12
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
			[		terial		_abor	Equip			ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Cover for manhole	Nos	10,00	705	50.68		1		1	0	507	60,81
	Ready mixed concrete	m3	25.60	0	70.00					0	1,792	215,04
	Wasted concrete(5%)	m3	1.28	0	70.00			1	ļ	0	90	10,75
	Formwork	m2	305.00	0	5.50				1	0	1,678	201,30
	Fuel Truck crane 16t	day	2	0	77					0	153	18,37
	" Concrete mixer 0.6m3	day	2	0.	0				1	0	0	
	" Generator 45KVA	day	2	0	24					0	48	5,70
	" Truck 8t	day	1	0	80		ì			0	80	9,58
	Sub Total			j			ĺ			0	4,346	521,57
2	Labor			į								
	Foreman	man.day	2	ļ		į,	38.20	o  -		0	76	9,16
	Labor	man,day	12			Ţ	14.30			0	172	20,59
	Truck crane 16t	man,day	2		4.	į	) 3:	3		0	66	7,92
	Concrete mixer 0.6m3	man.day	2	ŀ		į į	3:	3		0	66	7,92
	Generator 45KVA	man.day	2				3:	3	ļ	0	66	7,92
	Truck 8t	man.day	1	j		• (	3:	3	1	0	33	3,96
	Sub Total	1	1						ŀ	0	479	57.48
3	Equipment		·	•								
		day	2				1	9,480	0	18960	0	18,96
	Concrete mixer 0.6m3	day	2	•	. "			6,480	. o	12,960	ol	12,96
	Generator 45KVA	day	2					1,080	l 0	2,160	o	2,16
		day	1			•		3,480		3,480		3,48
		day	4					120		480	ol	48
	Sub Total			. }		*		1		38,040	ol	38,04
	<u> </u>	<u> </u>	<del></del>					Total		38,040	4,825	617,09
								Unit Price pe	er No.	3,804,00		61,709.1
	INDIRECT COST								15%	570.60	72.38	9,256,3
	TOTAL									4,375	554.92	70,960

2H0807

	Backfill sand & Compact	ion				·	LC: US\$	·		Total estimate		US\$=¥120
No	Work Item	Unit	Quantity			Ba	sic Price			Unit (	Cost	Total
	•	1	[	Mate	rial	L	abor	Equip	ment	Amo		in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Backfill sand	m3	260	0	4.00					o	1,040	124,800
-	Wasted Backfill sand (25%)	m3	65	0	4.00				1	0	260	31,200
	Fuel Backhoe 0.8m3	day	2	0	95				1	0	191	22,894
	" Tire roller 8-20t	day	2.0	0	55				1	0	110	13,231
	" Tampa 60kg	day	2.0	o	2		· ·			o	3	396
	Sub Total		}	l					}	0	1,604	192,521
2	Labor				1							
	Foreman	man.day	2	1		O	38.20			0	76	9,168
	Labor	man.day	8			Ø	14.30	i		0	114	13,728
	Backhoe 0.8m3	man,day	1 1	j	}	0	33	'	j	lol	66	7,920
	Tire roller 8-20t	man.day	2		. 1	. 0	33			- 0	66	7,920
	Sub Total		1							o	323	38,736
	Equipment		[ [	[	. [					[		
	Backhoe 0.8m3	day	2	}		•		11,280	l o	22,560	0	22,560
	Tire roller 8-20t	day	2	1				3,360	ì	6,720	. 0	6,720
•	Tampa 60kg	day	2					212	0	425	0	425
	Sub Total	1		ł	- 1				·	29,705	o	29,705
	<u></u>		4 <u>.</u>	······································				Total	<u> </u>	29,705	1,927	260,962
								Unit Price pe	er No.	2,970.48	192.71	26,096.16
	INDIRECT COST								15%		28.91	3,914.42
	TOTAL		· · · · · · · · · · · · · · · · · · ·							3,416	221.62	30,011

MANHOLE TYPE 2

	MANHOLE TYPE 2			LU	J: US\$	Total estimate for	IU Nos	US\$=¥12U	
No	Work Item	Unit	Quantity	Basic Pi	rice	Unit Co	st	Total	
			<u> </u>			Amoun	t	in	
	· · · · · · · · · · · · · · · · · · ·			FC	LC	FC	LC	YEN	
2H0901	Excavation & Disposal	Nos.	10	5,686	114.94	56,856	1,149,38	194,781	
2H0902	Crushed Stone for Foundation	Nos.	10	529	15.79	5,287	157.85	24,229	
2H0903	Lean Concrete	Nos.	10	159	41.01	1,590	410,10	50,801	
2H0904	Reinforcement	Nos.	. 10	8,704	753.10	87,037	7.531.04	990,761	
2H0905	Corner Angle	Nos.	10	676	68.57	6,756	685.73	89,045	
2H0906	Concrete Placing	Nos.	10	4,775	772.14	47,748	7,721.35	974,310	
2H0907	Backfill Sand & Compaction	Nos.	10	3,416	310.17	34,161	3,101,71	406,366	
	Total					239,434	20,757,16	2,730,293	
···			Uı	nit Price per No.		23,943	2,075.72	273,029	

FC: YEN

Excavation & Disposal for Manhole LC: US\$ Total estimate for 10 Nos US\$=¥120 Unit Cost Work Item Unit Quantity Basic Price Total No Labor Equipment Material Amount in FC LC FC LC FC LC FC LC YEN 1 Material Excavation sand m3 511 0.00 Fuel Backhoe 0.8m3 95 191 22,894 day Dump truck 10t 105 50,386 day 4.0 420 73,279 Sub Total 611 2 Labor Foreman 38.20 76 9,168 man.day 14.30 13,728 114 Labor man.day 7.920 Backhoe 0.8m3 man.day 33 Dump truck 10t 33 132 15,840 man.day 389 46,656 Sub Total 3 Equipment Backhoe 0.8m3 11,280 22,560 22,560 day Dump truck 10t 6,720 26,880 26,880 day 49,440 Sub Total 49,440 Total 49,440 999 169,375 Unit Price per No. 4,944.00 99.95 16,937.52 INDIRECT COST 15% 741.60 14.99 2,540,63 TOTAL 5,686 114.94 19,478

2H0902

	Crushed stone for Found	dation of	Manhole				LC: US\$			Total estimate	for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Bas	sic Price			Unit C	ost	Total
				Mate	erial	L	abor	Equipr	nent	Amoi	unt	īn
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material										. [	
	Crushed stone	m3	7.30	0	5.16						37.67	4,520
	Wasted crushed stone (25%)	m3	1.83	. 0	5.16		i ,				9.42	1,130
	Fuel Backhoe 0.8m3	day	0.4	0	95			}			38.16	4,579
	" Tampa 60kg	day	0.4	0	2						0.66	79
	Sub Total	1		1	-						85.90	10,308
2	Labor	1			-					· [	·	
	Foreman	man.day	0.4		. 1.	0	38.20	ļ			15.28	1,834
	Labor	man day	1.6	<b>]</b> .		0	14,30				22.88	2,746
	Backhoe 0.8m3	man.day	0.4			0	33	·	•	0	13.20	1,584
	Sub Total	ŀ		İ	1				4,	0	51.36	6,163
3	Equipment				1		٠	. 1				
1	1	day	0.4	1	ļ	•		11,280	0	4,512.00	0	4,512
	Tampa 60kg	day	0.4					212.40	. 0	84.96	o	85
	Sub Total									4,597		4,597
								Total		4,597	137	21,068
				•				Unit Price pe	r No.	459.70	13.73	2,106.83
	INDIRECT COST								15%	68.95	2.06	316.02
	TOTAL									529	15.79	2,423

	Lean Concrete				· · · · · · · · · · · · · · · · · · ·		LC: US\$	·		Total estimate	e for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Bas	ic Price			Unit	Cost	Total
			1 [	Mat	erial	1.	abor	Equip	ment	- Amo	ount	in
<u> </u>				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
į	Ready mixed concrete	m3	4.90	. 0	65.00				}	0	319	38,220
1.7	Wasted concrete(1.5%)	m3	0.07	0	65.00				[	0	5	573
ł	Fuel Concrete mixer 0.6m3	day	0.18	. 0	. 0					. 0	0	. 0
	" Generator 45KVA	day	0.18	0	24					0	4	513
	Sub Total		}					,	1	0	328	39,307
. 2	Labor				ļ							
[	Foreman	man.day	0.18			a	38.20		[ ]	0	7	825
	Labor	man.day	0.72	1		0	14.30			0	10	1.236
	Concrete mixer 0.6m3	day	0.18	}	1	٥	33		}	o	6	713
1	Generator 45KVA	day	0.18		{	0	33			. 0	6	713
	Sub Total		1						1	0	29	3,486
3	Equipment		] [	1							1	
	Concrete mixer 0.6m3	day	0.18					6,480	0	1166.4	О	1,166
	Generator 45KVA	day	0.18					1,080	. 0	194.4	0	194
	Vibrator	day	0.18	1	1			120	0	21.6	o	22
l	Sub Total							·		1,382	0	1,382
								Total		1,382	357	44,175
								Unit Price p	er No.	138.24	35,66	4,417,52
	INDIRECT COST								15%	20.74	5.35	662.63
	TOTAL									159	41.01	5.080

# LA UNION PORT DEVELOPMENT PROJECT 2H0904 Reignforcement

	Reignforcement						LC: US\$				Total estimate	for 10 Nos	US\$=¥12
No	Work Item	Unit	Quantity			Bas	sic Price				Unit	Cost	Total
				Mat	erial		abor	1	Equipn	nent	Amo	unt	in
		·		FC	LC	FC	LC	FC		LC	FC	LC	YEN
. 1	Material	1						T					
	Reinforcement bar	ton .	8.50	0	360.00					i	. 0	3,060	367 <b>,2</b> 0
	Wasted stee! bar(1.5%)	ton	0.13	.0	360.00				1	·	. 0	46	5,50
	Fuel Truck crane 16t	day	5.3	. 0	. 77						0	406	48,69
	" Truck 8t	day	5.3	0	80		1		1		. 0	423	50,81
	" Generator 45KVA	day	. 5	0	24		· .		1		0	126	15,11
	Sub Total	.	· ·	. 1					1		0	4,061	487,32
2	Labor		! !						ĺ		1.	İ	
	Foreman	man.day	5.3	l		0	38.2	0			0	202	24,29
	Labor	man.day	106	1		Ø	14.3	0	1		. 0	1,516	181,89
	Welder	man.day	10.6		·	0	23.0	9			0	245	29,37
	Truck crane 16t	man.day	5.3	ľ		O	3:	3		-	0	175	20,98
	Truck 8t	man.day	5.3	- 1-		. D	3:	3		ļ	. 0	175	20,98
	Generator 45KVA	man.day	5.3	ļ		0	3:	3			0	175	20 98
	Sub Total	1			j			1			0	2,488	298 52
3	Equipment						ļ	1 .	.				
	Truck crane 16t	day	5.3		. [				9,480	. 0	50244	. 0	50,24
	Truck 8t	day	5.3				<b>i</b> .	'	3,480	0	18,444	0	18,44
	Generator 45KVA	day	5,3		]				1,080	0	5,724	0	5,72
	Bar cutter	day	5.3					İ	120	0	636	o	63
	Bar bender	day	5.3	.					120	. 0	636	0	63
	Sub Total							<u> </u>		*	75,684	0	75.68
								Total			75,684	6,549	861,53
								Unit Pr	ice pe	r No.	7,568.40	654.87	86,153.1
	INDIRECT COST									15%	1,135,26	98.23	12,922.9
	TOTAL										8,704	753.10	99,07

	Corner Angle for Manho	le					LC: US\$			_ 1	Fotal estimate	for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Bas	sic Price				Unit	Cost	Total
			}	Ma	terial		abor	Equip	ment	$_{\perp}$	Amo	ount	in .
				FC	LC LC	FC	LC	FC	LC		FC	LC	YEN
1	Material												
	Coner angle	kg	320.00	0	0.36	•	i	Ĭ			0	115	13,82
	Wasted corner angle(2%)	kg	6.40	0	0.36						o	2	27
	Miscellaneous	LS.	] 1]	0	2.35		]	]	1		0	2	28
•	Fuel Truck 8t	day	1.2	0	80						0	96	11,50
	" Generator 45KVA	day	1,2	0	24	•					0	29	3,42
	Sub Total		}		1		}	ł	l	.	0	244	29,30
. 2	Labor			ļ				<b>,</b>	Ì	1		1	
	Foreman	man.day	1.2			0	38.20		[	-	. 0	46	5,50
	Labor	man.day				O	14.30		i	1	0	172	20,59
	Welder	man.day	2.4			o	23.09		İ		. 0	55	6,65
	Truck 8t	man.day	1. 1			O	j 33	1		l	o	40	4,75
	Generator 45KVA	man.day	1 1	1		٥	33	1		- 1	0	40	4,75
	Sub Total						į			ł	o	352	42,24
3	Equipment	1						}	-		1		
•	Truck 8t	day	1.2					3,480	, ·	اه	4,176	0	4,17
	Generator 45KVA	day	1.2			,		1,080	1 .	٥	1,296	a	1,29
	Welder 300A	day	2.4	ľ	·			120		o	288	a	288
	Other equipment	L.S.			·			115	[	0	115	a	11
	Sub Total				•						5,875	0	5,87
			<u></u>					Total	· · · · · · · · · · · · · · · · · · ·	_	5,875	596	77,430
				•				Unit Price p	er No.	T	587.52	59.63	7,743.00
	INDIRECT COST							·		5%	88.13	8.94	1,161.4
	TOTAL									$\dashv$	676	68.57	8,904

#### LA UNION PORT DEVELOPMENT PROJECT 2H0906 Concrete Placing

	Concrete Placing						LC: US\$			Total estimate	for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity				sic Price			Unit	Cost	Total
				Ma	aterial	L	abor	Equip		Amo		in
		<u></u>		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material	ľ						į				
	Cover for manhole	Nos	10.00	745	57.93		1			0	579	69,516
	Ready mixed concrete	m3	38.00	. 0	70.00					. 0	2,660	319,200
	Wasted concrete(5%)	m3	1.90	0	70.00			•		0	133	15,960
	Formwork	m2	449.00	0	5,50					- 0	2,470	296,340
	Fuel Truck crane 16t	day	2	0	77					0	153	18,374
	" Concrete mixer 0.6m3	day	2	0	0				į	0	o	ſ
	" Generator 45KVA	day	2	0	24					. 0	48	5,702
	" Truck 8t	day	2	0	80					0	160	19.174
	Sub Total							•	1.	0	6,202	744,266
2	Labor	ļ ·							} ·			
	Foreman	man.day	2			٥	38.20			0	76	9,168
	Labor	man.day	12		-	Ď	14.30			0	172	20,592
	Truck crane 16t	man.day	2			0	33		ļ ·	0	66	7,920
	Concrete mixer 0.6m3	man.day	2			0	33		ĺ	0	66	7,920
	Generator 45KVA	man.day	2			0	33			0	66	7,920
	Truck 8t	man.day	2			0	33	1		0	66	7,920
	Sub Total				·					0	512	61,440
3	Equipment											•
	Truck crane 16t	day	2					9,480	i .	18960	0	18,960
	Concrete mixer 0.6m3	day	. 2					6,480	0	12,960	이	12,960
	Generator 45KVA	day	2					1,080	0	2,160	0	2,168
	Truck 8t	day	2					3,480	. 0	6,960	0	6,960
	Vibrator	day	4					120	0	480	이	480
	Sub Total	L					<u> </u>	<u></u>		41.520		41,520
		-			-			Total		41,520	6,714	847,226
		. "						Unit Price pe		4,152.00	671.42	84,722.64
	INDIRECT COST								15%	622.80	100.71	12,708,40
	TOTAL									4,775	772.14	97,431

2H0907

	Backfill sand & Compact	ion					LC: US\$			Total estimate	for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
			] [	Mate	erial	La	bor	Equip	ment	Amo	ount	în
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material							<u> </u>		·		
	Backfill sand	m3	414	o	4.00					0	1,656	198,720
	Wasted Backfill sand (25%)	m3	103.5	o	4.00					. 0	414	49,680
	Fuel Backhoe 0.8m3	day	2	0	95	. 1			•	0	191	22,894
	" Tire roller 8-20t	day	2.0	o	55	· }	1		}	0	110	13,231
	" Tampa 60kg	day	2.0	0	2					0	3	396
	Sub Total									0	2,374	284,921
2	Labor											
	Foreman	man.day	2	ł		o	38.20			0	76	9,168
	Labor	man.day	. 8	•		. 0	14.30			0	114	13,728
	Backhoe 0.8m3	man.day	2			0	33			0	66	7,920
-	Tire roller 8-20t	man.day	2			σ	33		·	0	66	7,920
	Sub Total		1 1	İ						0	323	38,736
3	Equipment						-					
	Backhoe 0.8m3	day	2					11,280	0	22,560	0	22,560
	Tire roller 8-20t	day	2					3,360	. ··· o	6,720	0	6,720
	Tampa 60kg	day	2					212	0	425	0	425
	Sub Total			. 1						29,705	0	29,705
								Total		29,705	2,697	353,362
						,		Unit Price pe	er No.	2,970,48	269.71	35,336.16
	INDIRECT COST								15%	445.57	40.46	5,300,42
	TOTAL									3,416	310.17	40,637

2H10

FC: YEN

MANHOLE TYPE 2-2

LC: US\$ Total estimate for 10 Nos

US\$=¥120

No	Work Item	Unit	Quantity	Basic	Price	Unit C	ost	Total
	1					Amou	ınt	ín
			_	FC	LC	FC	LC	YEN
2H1001	Excavation & Disposal	Nos.	10	5,686	114.94	56,856	1,149.38	194,781
2H1002	Crushed Stone for Foundation	Nos.	10	529	15.79	5,287	157.85	24,229
2H1003	Lean Concrete	Nos.	10	159	41.01	1,590	410.10	50,80
2H1004	Reinforcement	Nos.	10	8,704	790.92	87,037	7,909,23	1,036,144
2H1005	Corner Angle	Nos.	10	676	68.57	6,756	685.73	89,045
2H1006	Concrete Placing	Nos.	10	4,775	1,204.01	47,748	12,040.06	1,492,556
2H1007	Backfill Sand & Compaction	Nos.	10	3,416	359.62	34,161	3,596.21	465,706
	Total	<u> </u>			<u> </u>	239,434	25,948.56	3,353,261
				Unit Price per No.		23,943	2,594.86	335,32

	Excavation & Disposal for	Manhol	e			<u> </u>	LC: US\$			Total estimate	e for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			В	asic Price			Unit	Cost	Total
	1	1	[	Mate	erial	1	abor	Equip	ment	Amo	ount	in
L				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material							1				
	Excavation sand	m3	608	아	0.00	•				0	0	0
	Fuel Backhoe 0.8m3	day	2	oļ	95					0	191	22,894
	" Dump truck 10t	day	4.0	0	105				}	o	420	50,386
	Sub Total	{	[	. [		-		ĺ		0	611	73,279
2	Labor											
	Foreman	man.day	2		.	0	38,20		,	0	76	9,168
 	Labor	man.day	8			0	14.30			0	114	13,728
	Backhoe 0.8m3	man.day	2			0	. 33	ŀ		0	66	7.920
	Dump truck 10t	man.day	4	·		. 0	33	}		0	132	15,840
	Sub Total	1							ļ	0	389	46,656
. 3	Equipment			İ								
ŀ	Backhoe 9.8m3	day	2	į				11,280	0	22,560	0	22,560
	Dump truck 10t	day	4	.				6.720	0	26,880	o	26,880
	Sub Total		<u> </u>				<u></u>	L		49,440	0	49,440
					• • • • • • • • • • • • • • • • • • • •			Total		49,440	999	169,375
								Unit Price p	er No.	4,944.00	99.95	16,937.52
	INDIRECT COST								15%	741.60	14.99	2,540.63
	TOTAL				:					5,686	114.94	19,478

	Crushed stone for Found	dation o	f Manhole						LC: US\$			То	tal estimate	for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity				В	asi	c Price				Unit C	ost	Total
			[		Mate	erial		La	bor	Equip	ment		Amou	int	in
				FC		LC	FC		LC	FC	LC		FC	LC	YEN
1	Material				Τ			Т							
	Crushed stone	m3	7.30		0	5.16			ĺ				0	37.67	4,520
	Wasted crushed stone (25%)	m3	1.83		Đ	5.16		-					0	9.42	1,130
	Fuel Backhoe 0.8m3	day	0.4		С	95							0	38.16	4,579
	" Tampa 60kg	day	0.4		0	2		- 1	}				٥	0.66	79
	Sub Total	[	[		ı				ļ				0	85.90	10,308
2	Labor	}							j						
	Foreman	man.day	0.4					이	38.20	·			0	15.28	1,834
	Labor	man.day	1.6		1			0	14.30				0	22.88	2,746
	Backhoe 0.8m3	man.day	0.4					0	33			1	0	13.20	1,584
	Sub Total												0	51.36	6,163
3	Equipment													İ	
	Backhoe 0.8m3	day	0.4					1		11,280		0	4,512.00	σ	4,512
	Tampa 60kg	day	0.4		ĺ			-		212.40		이	84.96	o	85
	Sub Total												4,597	0	4,597
		, ,							-	Total			4,597	137	21,068
										Unit Price po			459,70	13.73	2,106.83
	INDIRECT COST										15	%	68,95	2.06	316.02
	TOTAL												529	15.79	2.423

2H1003

	Lean Concrete			-			LC: US\$			Total estimat	e for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Bas	sic Price			Unit	Cost	Total
			[ [	Ma	terial	Ĺ	abor	Equip	ment	Amo	ount	in .
			<u> </u>	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material						-					
	Ready mixed concrete	m3	4.90	0	65.00					0	319	38,220
	Wasted concrete(1.5%)	m3	0.07	. 0	65.00	1		1		0	5	573
	Fuel Concrete mixer 0.6m3	day	0.18	. 0	. 0					0	0	0
	" Generator 45KVA	day	0.18	0	24	ļ				0	4	513
	Sub Total	1.		ĺ						0	328	39,307
2	Labor		]					·				
	Foreman	man day	0.18			- 0	38.20	ļ ·		. 0	7	825
	Labor	man,day	0.72	ĺ		0	14.30			) o	10	1,236
	Concrete mixer 0.6m3	day	0.18			٥	33			0	6	713
	Generator 45KVA	day	0.18			0	33				6	713
	Sub Total	[	[ [	ĺ						. 0	29	3,486
3	Equipment		ļ j					·				6
	Concrete mixer 0.6m3	day	0.18	j				6,480	0	1166.4	0	1,166
	Generator 45KVA	day	0.18		·			1,080	0	194,4	0	194
	Vibrator	day	0.18	1				120	0	21.6	0	22
	Sub Total	<u> </u>	<u> </u>				<u> </u>	<u>                                     </u>		1,382		1,382
			,					Total		1,382	<del></del>	44,175
	<u></u>				·	<u></u>		Unit Price po		138.24		4,417.52
	INDIRECT COST								15%	20.74	5.35	562.63
	TOTAL									159	41.01	5,080

	Reignforcement						LC: US\$			Total estimate	for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Ba	sic Price			Unit (	Cost	Total
				Ma	iterial	L	abor	Equipr	nent	Amo	unt	in
ļ				FC	LC	FC	LC	FC	LC	FC_	LC	YEN
1	Material											
Ì	Reinforcement bar	ton	9,40	0	360.00			1	l .	0	3,384	406,080
1	Wasted steel bar(1.5%)	ton	0.14	0	360.00					0	51	6,091
	Fuel Truck crane 16t	day	5.3	. 0	77		ļ			0	406	48,692
	" Truck 8t	day	5.3	o	80					O O	423	50,810
	" Generator 45KVA	day	5	0	24					0	126	15,111
1	Sub Total				·		Į			0	4,390	526,785
2	Labor .											
	Foreman	man.day	5.3			0	38.20	)	•	0	202	24,295
1	Labor	man.day	106		·	. 0	14.30			0	1,516	181,896
1	Welder	man.day	10.6			0	23.09	)		0	245	29,370
	Truck crane 16t	man day	5.3			0	30	3			175	20,988
1	Truck 8t	man.day	5.3			0	30	3		0	175	20,988
<b>]</b> .	Generator 45KVA	man.day	5.3			0	30	3 -		0	175	20,988
1	Sub Total	1		į			1	1		0	2,488	298,526
3	Equipment	1										
1	Truck crane 16t	day	5.3					9,480	0	50244	0	50,244
i	Truck 8t	day	5.3					3,480	. 0	18,444	0	18,444
1	Generator 45KVA	day	5,3	,				1,080	0	5,724	0	5,724
	Bar cutter	day	5.3					120	0	636	. 0	636
	Bar bender	day	5.3					120	. 0	636	. 0	636
	Sub Total		·		·					75,684	Ö	75,684
L	<u> </u>		·					Total		75,684	6,878	900,994
٠.								Unit Price pe	r No.	7,568,40	687.76	90,099.44
	INDIRECT COST								15%	1,135.26	103.16	13,514.92
	TOTAL									8,704	790.92	103,614

5 FC: YEN

LC: US\$ Total estimate for 10 Nos US\$=¥120 Corner Angle for Manhole Work Item Basic Price Unit Cost Total Nο Unit Quantity Labor Amount Material Equipment in FC LC YEN FC LC FC LC FC LC 1 Material 13,824 Coner angle 320.00 0.36 115 276 6.40 0.36 Wasted corner angle(2%) kg 282 Miscellaneous L.S. 2.35 11,504 Fuel Truck 8t 80 96 day 1.2 29 3,421 Generator 45KVA 1.2 24 day 244 29,308 Sub Total 2 Labor 5,**5**01 46 Foreman man.day 38.20 20,592 Labor 12 14,30 172 man,day 55 6,650 Welder 2.4 23,09 man,day 4.752 1.2 33 40 Truck 8t man.day 4,752 1.2 33 Generator 45KVA man.day 352 42,247 Sub Total 3 Equipment Truck 8t 3,480 4,176 4,176 day 1.2 1,080 1,296 1,296 Generator 45KVA day 2.4 120 288 288 Welder 300A day 115 L.S. 115 115 Other equipment 5,875 5,875 Sub Total Total 5,875 596 77,430 7,743.00 Unit Price per No. 587.52 59.63 INDIRECT COST 1,161.45 15% 88.13 8.94 68.57 8,904 TOTAL

	ZH 1000							_C: US\$			Total estimate	for 10 Noc	US <b>\$=</b> ¥12
	Concrete Placing	Unit	Quantity		**			c Price			Unit		Total
Νo	Work Item	Unit	Quantity	ha-	terial	<u> </u>		bor	Equipr	ment	Amo		in
			<u> </u>	FC	LC	FC	7	LC	FC	LC	FC	LC	YEN
1	Material	†											
	Cover for manhole	Nos	10.00	o	411.42						0	4.114	493,70
	Ready mixed concrete	m3	41.00	o	70.00						0	2,870	344,40
	Wasted concrete(5%)	m3	2.05	o	70.00						0	144	17,22
	Formwork	m2	449.00	0	5,50			· i			. 0	2,470	296,34
	Fuel Truck crane 16t	day	2	0	77			ĺ			0	153	18,37
		day	2	0	0						0	0	
	" Generator 45KVA	day	2	0	24						0	48	5,70
	" Truck 8t	day	2	0	80		1	į			0	160	19,17
	Sub Total							į			0	9,958	1,194,91
2	Labor	}					- 1		•				
-	Foreman	man,day	2	-			0	38.20			0	76	9,16
	Labor	man.day	12		·		o	. 14.30			0	172	20,59
	Truck crane 16t	man.day	2				0	33			0	66	7,92
	Concrete mixer 0.6m3	man.day	2				0	33			0	66	7,92
	Generator 45KVA	man.day	2				미	33			0	66	7,92
	Truck 8t	man.day	2	•			이	33			0	66	7,92
	Sub Total							l			0	512	61,44
3	Equipment	1			*			i			ĺ	[	
•	Truck crane 16t	day	2						9,480	0	18960	0	18,96
	Concrete mixer 0.6m3	day	2					i	6,480	0	12,960	. 0	12,96
	Generator 45KVA	day	2				-		1,080	. 0	2,160	. 0	2,16
	Truck 8t	day	2	-				·	3,480	0	6,960	0	6,96
	Vibrator	day	4				-	}	120	0	480	0	48
	Sub Total	<u> </u>			:						41,520	0	41,52
									Total		41,520	10,470	1,297,87
								·	Unit Price pe		4,152.00	1,046.96	129,787.4
	INDIRECT COST									15%		157.04	19,468.1
	TOTAL										4,775	1,204.01	149,25

# LA UNION PORT DEVELOPMENT PROJECT 2H1007 Backell cond & Compaction

	Backfill sand & Compaction						LC: US\$			Total estimate	e for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Ва	sic Price			Unit	Cost	Total
				Mate	rial	نيا	abor	Equip	ment	Am	ount	in
				FC	LC	FC	LC	FC	. LC	FC	LC	YEN
1	Material				_							
	Backfill sand	m3	500	0	4.00	[			[	[ of	2,000	240,00
	Wested Backfill sand (25%)	m3	125	0	4.00				ļ	- 0	500	60,00
	Fuel Backhoe 0.8m3	day	2	0	95					0	191.	22,89
	" Tire roller 8-20t	day	2.0	0	55	- 1	·			0	110	13,23
	" Tampa 60kg	day	2.0	ol	2	1			į Į	. 0	3	396
	Sub Total				ì					0	2,804	336,52°
2	Labor				ļ	ł			Ì			
	Foreman	man.day	2		i	ø	38.20			o	76	9,168
	Labor	man.day	8		•	٥	14.30			0	114	13,728
	Backhoe 0.8m3	man.day	2	)		0	33			0	66	7,920
	Tire roller 8-20t	man.day	2	1		0	33			0	66	7,920
	Sub Total				ł					0	323	38,736
3	Equipment								}	]		
	Backhoe 0.8m3	day	2		,		.	11,280	0	22.560	0	22,560
	Tire roller 8-20t	day	2				·	3,360	0	6,720	0	6,720
	Tampa 60kg	day	2	İ				212	0	425	0	423
	Sub Total				1				<u></u>	29,705	0	29,705
								Total		29,705	3,127	404,962
								Unit Price pe	er No.	2,970,48	312.71	40,496.16
	INDIRECT COST								15%	445.57	46.91	6,974.42
	TOTAL									3,416	359.62	46,571

	MANHOLE TYPE 2-C			LO	: US\$	Total estimate for	10 Nos	US\$=¥120
No	Work Item	Unit	Quantity	Basic Pr	ice	Unit Cos	st	Total
		i i				Amount	t	in
			· .	FC	LC	FC	LC_	YEN
2H1101	Excavation & Disposal	Nos.	10	8,528	172.41	85,284	1,724.07	292,172
2H1102	Crushed Stone for Foundation	Nos.	10	529	18.53	5,287	185,29	27,522
2H1103	Lean Concrete	Nos.	10	177	60.40	1,756	604.03	74,250
2H1104	Reinforcement	Nos.	10	11,495	1,115.42	114,954	11,154.16	1,453,453
2H1105	Corner Angle	Nos.	10	676	75.46	6,756	754.65	97,314
2H1106	Concrete Placing	Nos.	10	7.162	2,037.33	71,622	20,373.26	2,516,413
2H1107	Backfill Sand & Compaction	Nos.	10	5,124	539.43	51,241	5,394.32	698,559
	Total					336,910	40,189.79	5,159,685
			Uni	it Price per No.		33,691	4,018.98	515,968

2H1101

	Excavation & Disposal 1	or Manhol	e			· ·	LC: US\$			Total estimate	for 10 Nos	US\$=¥120
Νo	Work Item	Unit	Quantity			В	asic Price			Unit C	Cost	Total
			1 L	Mate	rial	<u> </u>	abor	Equip	ment	Amoi	unt	in
			ł [	FC	LC	FC	LC	FC _	LC_	FC	LC	YEN _
1	Material											
	Excavation sand	m3	912	0	0.00			·		0	o	
	Fuel Backhoe 0.8m3	day	3	0	95					0	286	34,34
	" Dump truck 10t	day	6.0	0	105		,			. 0	630	75,57
	Sub Total			·		* .				0	916	109,91
	Labor											
	Foreman	man.day	, 3			ď	38.20			0	115	13,75
	Labor	man.day	12			Ø	14.30			o	172	20,59
	Backhoe 0.8m3	man.day	3		1	Ø	33			0	99	11,88
	Dump truck 10t	man.day	, 6			Đ	33			0	198	23,76
	Sub Total		1	. 1	1		1			ol	583	69,98
3	Equipment		] ]	1				·				
	Backhoe 0.8m3	day	3		j			11,280	0	33,840	0	33,84
	Dump truck 10t	day	6					6,720	o	40,320	0	40,32
	Sub Total	.		1	1		. "			74,160	ol	74,16
•	<u> </u>			<del></del>	<del></del>			Total	<u> </u>	74,160	1,499	254,06
	* *	•						Unit Price pe	er No.	7,416.00	149.92	25,406.2
	INDIRECT COST		<del></del>	<del></del>		*** <del>*</del>		·	15%	1,112.40	22.49	3,810.9
	TOTAL					<del></del>				8,528	172.41	29,21

	Crushed stone for Found	lation of	Manhole				LC: US\$			Total estimate	for 10 Nos	US\$=¥120
No	Work Item	,	Quantity			Ba	sic Price			Unit C	ost	Total
			` [	Mat	terial	L	abor	Equipr	nent	Amou	nt	in
		}	l [	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material						1					
	Crushed stone	m3	11.00	이	5.16					0	56.76	6,81
	Wasted crushed stone (25%)	m3	2.75	0	5.16					0	14,19	1,70
	Fuel Backhoe 0.8m3	day	0.4	이	95						38.16	4,57
	" Tampa 60kg	day	0.4	0	2					0	0.66	7:
	Sub Total			ļ						0	109.77	13,17
	Labor	1							·			
	Foreman	man.day	0.4	1		. 0	38.20			0	15.28	1,834
	Labor	man.day	1.6	1		Ō	14,30	1		0	22.88	2,746
	Backhoe 0.8m3	man.day	0.4			0	33	}		0	13.20	1,584
	Sub Total	ł		1			1	}		0	51.36	6,16
	Equipment				•					]	}	
		day	0.4	ļ				11,280	0	4,512.00	٥	4,512
	Tampa 60kg	day	0.4	}				212,40	0	84.96	0	85
. :	Sub Total							<u> </u>		4,597	o	4,59
		<del></del>						Total		4,597	161	23,932
			•					Unit Price pe	r No.	459.70	16.11	2,393.21
	INDIRECT COST		***************************************	· · · · · · · · · · · · · · · · · · ·					15%	68.95	2.42	358.98
	TOTAL					<del></del>		····		529	18.53	2,752

2H1103

	Lean Concrete						LC: US\$			Total estimat	e for 10 Nos	US\$=¥120
No	Work Item	Unit	Quantity			Bas	ic Price			Unit	Cost	Total
		j		Mat	erial	L.	abor	Equip	ment	Amo	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Ready mixed concrete	m3	7.40	0	65.00					0	481	57,720
	Wasted concrete(1.5%)	m3	0.11	0	65.00		-		}	) 0	7	86€
	Fuel Concrete mixer 0.6m3	day	0.20	. 0	. 0		•			0	0	. 0
٠.	" Generator 45KVA	day	0.2	0	24			·		0	5	570
: 	Sub Total	1								0	493	59,15 <del>6</del>
2	Labor		} }	J	. ]				].			
	Foreman	man.day	0.2			ט	38.20			o	8	917
	Labor	man.day	0.8	· 1		D,	14.30		j	0	11	1,373
	Concrete mixer 0.6m3	day	0.20			٥	33	·		0	7	792
	Generator 45KVA	day	0.2			.0	33		}	0	7	792
	Sub Total			ĺ						0	32	3,874
3	Equipment	1		1					)			
: '	Concrete mixer 0.6m3	day	0.20	•				6,480	) (	1296	o	1,296
	Generator 45KVA	day	0.2	]		:		1,080	(	216	0	216
	Vibrator	day	0.2				•	120		24	0	24
	Sub Total		]					<u> </u>	1	1,536	0	1,536
								Total		1,536	525	64,566
				·				Unit Price pe	er No.	153.60	52.52	6,456.56
	INDIRECT COST								15%	23.04	7.88	968.48
	TOTAL									177	60.40	7,425

# LA UNION PORT DEVELOPMENT PROJECT 2H1104 Reignforcement

	Dalas formand						LC: US\$			Total estimate	a for 10 Nac	US\$=¥120
N)_	Reignforcement Work Item	Unit	Quantity				ic Price	<del></del>			Cost	Total
No	YVOTK ITEM	Unit	Quantity		terial		abor	E:-	ment	<del></del>	ount	in
		1		FC	LC LC	FC	LC	FC	LC	FC	LC	YEN
1	Material					· · ·			<del> </del>			
	Reinforcement bar	ton	14.10	- 0	360.00		: . :			0	5,076	609,120
	Wasted steel bar(1.5%)	ton	0.21	o	360.00				1.	0	76	9,13
	Fuel Truck crane 16t	day	7	0	77					0	536	64,310
	" Truck 8t	day	7	0	80			•		0	559	67,108
	" Generator 45KVA	day	7	ol	24					0	166	19,958
	Sub Total	]	]		J	. ]		•		0	6,414	769,63
2	Labor		ļ	ļ						1		
	Foreman	man.day	7			o	38.20		1	0	267	32,08
	Labor	man.day	140	•		o	14,30			. 0	2,002	240,24
	Welder	man.day	14			0	23.09			0	323	38,79
	Truck crane 16t	man.day	7	1		اه ·	33			0	231	27,72
	Truck 8t	man.day	7			σ	33			0	231	27.72
	Generator 45KVA	man.day	[ 7]			o	33			0	231	27,72
	Sub Total			•	•			1 1 1	1	. 0	3,286	394,27
3	Equipment											
	Truck crane 16t	day	7			· · · [		9,480	0	66360	. 0	66,360
	Truck 8t.	day	7					3,480	o  o	24,360	0	24,36
	Generator 45KVA	day	7					1,080	) 0	7,560	· o	7,560
	Bar cutter	day	7					120	) 0	840	٥	840
	Bar bender	day	7		1			120	) 0	840	0	840
-	Sub Total	L								99,960	0	99,960
								Total		99,960	9,699	1,263,87
· .		:					·	Unit Price p	ier No.	9,996.00	969.93	126,387.24
	INDIRECT COST								15%	1,499.40	145.49	18,958.09
	TOTAL									11,495	1,115.42	145,345

2H1105

	Corner Angle for Manho	ole					LC: US\$			Total estimat	e for 10 Nos	US\$=¥120
No	Work Item		Quantity			Bas	sic Price			Unit	Cost	Total
				Mar	terial	L	abor	Equip	ment		ount	in
		·		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Coner angle	kg	480.00	. 0	0.36	. <b>.</b> 			1	0	173	20,73
	Wasted corner angle(2%)	kg	9.60	o	0.36					. 0	3	41
	Miscellaneous	L.S.	1	0	3.53				j j	oj	4	42
	Fuel Truck 8t	day	1.2	0	80					0	96	11,50
	" Generator 45KVA	day	1.2	o	24	*				0	29	3,42
	Sub Total		į l		·				ĺ	0	304	36,49
2	Labor		1	ĺ					[ . [	1		
	Foreman	man.day	1.2			O	38.20			0	46	5,50
	Labor	man.day	12	1		0	14,30			0	172	20,59
	Welder	man.day	2.4	{	· i	0	23.09		í	o	55	6,65
	Truck 8t	man.day	1.2	i		0	33	·		o	40	4,75
	Generator 45KVA	man.day	1.2	·		0	33			0	40	4,75
	Sub Total	. [	1	ł		i			ł 1	O	352	42.24
3	Equipment	1		1								
	Truck 8t	day	1.2	İ				3,480	0	4,176	Ø	4,17
	Generator 45KVA	day	1.2	}				1,080	.	1,296	O	1,29
	Welder 300A	day	2.4					120	. 0	288	Ø	28
	Other equipment	L.S.	1	. [				115	0	115	[ C	11!
	Sub Total									5,875		5,87
								Total		5,875	656	84,62
								Unit Price po		587.52	65.62	8,462.1
	INDIRECT COST								15%	88.13	9.84	1,269.3
	TOTAL									676	75.46	9,731

2H1106

	Concrete Placing						LC: US\$	<u> </u>		Total estimate	for 10 Nos	US\$=¥120
Νo	Work Item	Unit	Quantity			Bas	sic Price			Unit (		Total
		1	]. [	Ma	terial		abor	Equip	ment	Amo		in
		<u> </u>		FC	LC	FC	LC	FC	LC	FC	LC	YEN
, 1	Material	1									1	
	Cover for manhole	Nos	20.00	. 0	411.42			•		0	8,228	987,40
	Ready mixed concrete	m3	61,50	0	70.00		İ			0	4,305	516,60
	Wasted concrete(5%)	m3	3.08	0	70.00			ĺ		0	215	25,83
	Formwork	m2	673.00	0	5.50					0	3,702	444,18
	Fuel Truck crane 16t	day	3	0	77			•		0	230	27,56
	" Concrete mixer 0.6m3	day	3	0	. 0			1		0	0	
	" Generator 45KVA	day	3	0	24		ĺ	· ·		0	71	8,55
	" Truck 8t	day	3	0	80	•				0	240	28,76
	Sub Total									o	16,991	2,038,89
2	Labor			ļ			•		ļ	1		
	Foreman	man.day	1			0	38.20	•		0	115	13,75
	Labor	man,day	15			0	. 14,30			0	215	25,74
	Truck crane 16t	man.day	3	į		٥	33	ļ		0	99	11,88
	Concrete mixer 0,6m3	man.day	3	-		0	33			0	99	11,88
	Generator 45KVA	man.day	3			0	33		[	0	99	11,88
	Truck 8t	man,day	3			. 0	33	İ		0	99	11,88
	Sub Total			]						0	725	87,01
3	Equipment		1 1		;	٠.		<u> </u>				
	Truck crane 16t	day	3	.				9,480	. 0	28440	0	28,44
	Concrete mixer 0.6m3	day	3		, · · · · · · · · · · · · · · · · · · ·			6,480	0	19,440	0	19,44
	Generator 45KVA	day	3					1,080	0	3,240	. 0	3,24
	Truck 8t	day	3		•			3,480	0	10,440	· o	10,44
	Vibrator	day	6					120	0	720	0	72
	Sub Total						<u> </u>	<u> </u>		62,280	0	62,280
		-					<del></del> -	Total	٠.	62,280	17,716	2,188,18
								Unit Price po		6,228.00	1,771.59	218,818,5
	INDIRECT COST							· · · · · · · · · · · · · · · · · · ·	15%	934.20	265.74	32,822.7
	TOTAL									7,162	2,037.33	251,64

2H1107

	Backfill sand & Compact	on					LC: US\$	· .	•	Total estimat	e for 10 Nos	US\$=¥120
Nο	Work Item	Unit	Quantity			В	asic Price			Unit	Cost	Total
				Mate	erial	Ĺ	abor	Equip	ment		ount	in
		L		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Backfill sand	m3	750	. 0	4.00					0	3,000	360,00
	Wasted Backfill sand (25%)	m3	187.5	0	4.00		<b>}</b>		}	0	750	90,00
	Fuel Backhoe 0.8m3	day	3	. 0	95			·		0	286	34,34
	" Tire roller 8-20t	day	3.0	. 0	- 55					0	165	19,84
	" Tampa 60kg	day	3,0	σ	2		1			. 0	5	. 59
	Sub Total					•				0	4,207	504,78
2	Labor			]								
	Foreman	man.day	3	٠. ا		σ	38.20	ľ	ĺ	0	115	13,75
	Labor	man.day	12			Ö	14.30			0	172	20,59
	Backhoe 0.8m3	man.day	1 1			0	33		ļ	0	99	11,88
	Tire roller 8-20t	man.day	3			O	33	i		0	99	11,88
	Sub Total									0	484	58,10
3	Equipment											
	Backhoe 0.8m3	day	3					11,280	· o	33,840	0	33,84
	Tire roller 8-20t	day	3	ł			Ċ	3,360	. o	10,080	0	10,08
	Tempa 60kg	day	3					212	0	637	0	63
.	Sub Total		i i	[						44,557	0	44,55
	<u> </u>		<u> </u>					Total		44,557	4,691	607,44
·		•						Unit Price pe	er No.	4,455.72	469.07	60,744.2
_	INDIRECT COST								15%	668.36	70.36	9,111.6
	TOTAL									5,124	539.43	69,85

	Trench Type 1 without cover			L	<u>-C: US\$</u>	Total estimate for	100m	US\$=¥120
No	Work Item	Unit	Quantity	Basic F	Price	Unit	Cost	Total
						Amo	unt	in
				FC	LC	FC	LC	YEN
2H1201	Excavation & Disposal	М	100	62	1.25	6,210	124.81	21,187
2H1202	Crushed Stone for Foundation	M	100	33	1.09	3,304	109.32	16,422
2H1203	Reinforcement	M	100	113	12.40	11,281	1,239.61	160,033
2H1204	Concrete Placing	M	100	197	38.72	19,734	3,872.50	484,434
2H1205	Backfill Sand & Compaction	М	100	52	2.46	5,173	245.50	34,633
	Total					45,702	5,591.73	716,710
				Unit Price per m		457	55.92	7,167

2H1201

	Excavation & Disposal	for U-shape	ed Trench				LC: US\$			Total estimate	e for 100 m	US\$=¥120
No	Work Item	Unit	Quantity			Ва	sic Price			Unit	Cost	Total
				Mate	rial	<u>L</u>	abor	Equip	ment	Amo	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material					=						
	Excavation sand	m3	65	o	0.00	-				0	0	€
	Fuel Backhoe 0.8m3	day	0.3	o[	95		1			0	29	3,434
	" Dump truck 10t	day	0.3	- 0	105		-			) 0	31	3,779
	Sub Total					,				o	60	7,213
2	Labor		[ [		-							•
	Foreman	man.day	0.3			. 0	38.20			0	11	1,375
	Labor	man.day	1.2		İ	0	14.30	i	,	o	17	2.059
•	Backhoe 0,8m3	man.day	, ,	[	[	0	33			f ol	10	1.188
	Dump truck 10t	man.day	1 1		1	0	33				10	1,188
	Sub Total			ļ.						o	48	5,810
. 3	Equipment		[ [	ĺ	(					[	•	
	Backhoe 0.8m3	day	0.3					11,280	. 0	3,384	ol	3,384
	Dump truck 10t	day	0.3		İ			6,720		2,016	О	2,016
	Sub Total		1		· [					5,400	0	5,400
			· · · · · · · · · · · · · · · · · · ·		***************************************			Total		5,400	109	18,423
								Unit Price pe	er m	54.00	1.09	184.23
	INDIRECT COST								15%	8.10	0.16	27.64
	TOTAL				····		,			62	1.25	212

2H1202

	Crushed stone for Found	dation of	U-shaped	l trench			LC: US\$			Total estimat	e for 100 m	US\$=¥120
No	Work Item		Quantity		<del></del>	Bas	ic Price			Unit	Cost	Total
				Mate	erial	L	abor	Equip	ment	Am	ount	in
		<b>.</b>		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Crushed stone	m3	6.00	0	5.16					0	31	3,715
	Wasted crushed stone (25%)	m3	1.50	0	5.16					0	8	929
	Fuel Backhoe 0.8m3	day	0.25	0	95					0	24	2,8 <del>6</del> 2
	" Tampa 60-100kg	day	0.3	0	2			•		0	ס	50
	Sub Total									0	63	7,555
2	Labor			1.	l							
	Foreman	man.day	0.25		j	0	38.20	·		. 0	10	1,146
	Labor	man.day	1	·		ס	14.30			0	14	1,716
	Backhoe 0.8m3	man.day	0.25		j	o	33		· .	. 0	8	990
	Sub Total		Ì		- 1					0	32	3,852
	Equipment				-							
	Backhoe 0.8m3	day	0.25	l		İ		11,280	0	2,820	σ	2,820
	Tampa	day	0.25	1				212.40	0	53	0	53
	Sub Total			•				·		2,873	0	2,873
	·	<del></del>						Total		2,873	95	14,280
								Unit Price po	er m	28.73	0,95	142.80
	INDIRECT COST								15%	4.31	0.14	21.42
	TOTAL									33	1.09	164

2H1203

	Reinforcement						LC: US\$			Total estimate	for 100 m	US\$=¥120
No	Work Item	Unit	Quantity			Ba	Unit (	Total				
	<b>1</b> .		l [	Material		Labor		Equipment		Amo	unt	in
	<b>i</b>		ľ	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
1	Reinforcement bar	ton -	1.90	٥	360.00		}			0	684	82,080
1	Wasted re- bar(1.5%)	ton	0.03	0	360.00				ì	0	10	1,231
	Miscellaneous	L.S.	1.00	. 0	5.50					· 0	6	660
1	Fuel Truck crane 16t	day	0.64	0	77					. 0	49	5.880
	" Truck 8t	dey	0.64	o	80					0	51	6,136
	" Generator 45KVA	day	1.4	. 0	24					0	33	3,992
	Sub Total							·		0	833	99,978
2	Labor	1	}				}.				1.	. }
1	Foreman	man.day	1			ť	38.20			0	38	4,584
	Labor	man.day	6	·			14.30			0	86	10,296
1	Welder	man.day	1.4			. (	23.09			0	32	3,879
1	Truck crane 16t	man.day	0,64		ĺ	t	33			0	21	2,534
	Truck 8t	man day	0.64			ŧ	33			0	21	2,534
	Generator 45KVA	man day	1.4			. (	33			0	46	5,544
	Sub Total		Í. I		ĺ					0	245	29,372
3	Equipment				. [						1	
	Truck crane 16t	day	0.64					9,480	. 0	6067.2	jo	6,067
1	Truck 8t	day	0.64				•	3,480	0	2,227	0	2,227
	Generator 45KVA	day	1.4		İ			1,080	0	1,512	0	1,512
	Bar cutter	day	1.4				j	. 1	0	1	0	1
	Bar bender	day	1.4				1	1	0	1	o o	1
	Sub Total	1					<u> </u>			9.809	0	9,809
1								Total		9,809	1,078	139,159
							·	Unit Price pe	erm	98.09	10.78	1,391.59
<u> </u>	INDIRECT COST								15%	14.71	1.62	208.74
	TOTAL									113	12.40	1,600

2H1204

	Concrete Placing				LC: US\$	Total estimat	US\$=¥120					
No	Work Item	Unit	Quantity			Ba	sic Price	Unit	Total			
1			Material Labor				Equip	ment	Am	in		
1	· · ·	l	<u> </u>	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material	I										
}	Ready mixed concrete	m3	19,00	0	67.00		1			0	1,273	152,760
	Wasted concrete(5%)	m3	0.95	0	67.00					0	64	7,638
1	Formwork	m2	311.00	0	5.50		1			0	1,711	205,260
	Elas tigh board	m2	1.60	0	5.50			·		0	9	1,056
	Fuel Truck crane 16t	day	1	0	77		ł			0	. 77	9,187
	" Concrete mixer 0.6m3	day	1	0	0					0	σ	· 0
	" Generator 45KVA	day	1	0	24					0	24	2,851
	Sub Total			-		, *				0	3,156	378,752
2	Labor											
1.	Foreman	man.day	1		i	τ	38.20			0	. 38	4,584
	Labor	man.day	6			. (	14.30			0	86	10,296
	Truck crane 16t	men.day	1		ļ	τ	33	·		0	33	3,960
1	Generator 45KVA	man.day	1			(	33	Ì	<u> </u>	. 0	33	3,960
	Truck 8t	man.day	0.64			(	33	Į		0	21	2,534
	Sub Total						}	l	İ	0	211	25,334
1 3	Equipment				. •					} .		
1	Truck crane 16t	day	1					9,480	0	9480	. 0	9,480
1.	Concrete mixer 0.6m3	day	1		ĺ		1	6,480	0	6,480	σ	6,480
	Generator 45KVA	day	. 1					1,080	0	1,080	O	1,080
	Vibrator	day	1					120	l . o	120	O	120
	Sub Total				<u></u> -					17,160	g	17,160
								Total		17,160	3,367	421,247
					<u> </u>		· .	Unit Price p		171.60	33.67	4,212.47
	INDIRECT COST								15%	25.74	5.05	631.87
	TOTAL									197	38.72	4,844

2H1205

FC: YEN

Backfill sand & Compaction LC: US\$ Total estimate for 100 m US\$=¥120 Work Item Unit Quantity Basic Price Unit Cost Total No Amount Material Labor Equipment in FC LC FC LC FC LC FC LC YEN 1 Material Backfill sand 80 9,600 m3 20 4.00 Ó 20 Wasted Backfill sand (25%) m3 4.00 2,400 29 day 3,434 Fuel Backhoe 0.8m3 0.3 0 95 55 17 1,985 Tire roller 8-20t day 0.3 0.5 99 Tampa dav Sub Total 146 17,518 2 Labor 2,292 Foreman man.day 0.5 38,20 19 3,432 Labor man.day 14.30 29 0.3 33 10 1,188 Backhoe 0.8m3 man.day Tire roller 8-20t 0.3 10 1.188 man.day 68 Sub Total 8,100 3 Equipment Backhoe 0.8m3 day 0.3 11,280 3,384 3,384 1,008 Tire roller 8-20t day 0.3 3,360 1,008 0.5 212.40 106 106 Tampa day 4,498 4,498 Sub Total Total 4,498 213 30,116 Unit Price per m 44.98 2.13 301.16 15% INDIRECT COST 6.75 0.32 45.17 2.46 TOTAL 346

Trench Type 1 with concrete cover

	Trench Type 1 with concrete cover	•		LC	3: US\$	Total estimate for	US\$=¥120		
No	Work Item	Unit	Quantity	Basic Pri	ice	Unit	Cost	Total	
						Amo	ount	in	
	1			FC	LC	FC	LC	YEN	
2H1301	Excavation & Disposal	М	100	62	1.25	6,210	124.81	21,187	
	Crushed Stone for Foundation	М	100	33	1.09	3,304	109.32	16,422	
2H1303	Reinforcement	М.	100	113	15.76	11,281	1,575.77	200,373	
2H1304	Concrete Placing	М	100	223	59.93	22,295	5,992.50	741,395	
2H1305	Backfill Sand & Compaction	м	100	52	2.69	5,221	268.50	37,442	
	Total					48,311	8,070.90	1,016,820	
			ป	nit Price per m		483	80.71	10,168	

2H1301

	Excavation & Disposal	for U-shap	ed Trench				Total estimate	US\$=¥120					
No	Work Item	Unit	Quantity			В	asic Price	Unit (	Total				
	4			Material		Labor		<u> </u>	Equipment		Amo	unt	in
				FC	LC	FC	LC	f	FC	LC	FC	LC	YEN
1	Material												
	Excavation sand	m3 .	72	0	0.00		1	}			0	0	0
	Fuel Backhoe 0,8m3	day	0.3	0	95			1			. 0	29	3,434
	" Dump truck 10t	day	0.3	0	105			ļ			O	31	3,779
	Sub Total	1	1	Ī	1		{ ·				0	60	7,213
2	Labor		]	]				]	Ì				
	Foreman	man.day	0.3	- 1	- 1	6	38.2	ol	İ		0	11	1,375
	Labor	man.day	1.2			C	14.3	0			0	17	2,059
	Backhoe 0.8m3	man.day	0.3	. ]		C	) 3	3			. 0	10	1,188
	Dump truck 10t	man.day	0.3	}		C	. <mark> </mark> 3	3			0	10	1,188
	Sub Total		1	1	1			ì			0	48	5,810
3	Equipment	·	1 1	1	}		1	1					
	Backhoe 0.8m3	day	0.3		İ			1	11,280	0	3,384	O	3,384
	Dump truck 10t	day	0.3				)	1	6,720	0	2,016	0	2,016
	Sub Total	1	l						i		5,400	0	5,400
								Total			5,400	109	18,423
								Unit I	<sup>O</sup> rice pe	r m	54.00	1.09	184.23
	INDIRECT COST									15%	8.10	0.16	27,64
	TOTAL										62	1.25	212

2H1302

FC: YEN

Crushed stone for Foundation of U-shaped trench LC: US\$ Total estimate for 100 m US\$=¥120 Unit Cost Basic Price Total Unit Quantity No Work Item Amount in Material Labor Equipment LC FC LC YEN FC LC FC LC FÇ 1 Material 31 3.715 Crushed stone 6.00 5.16 929 Wasted crushed stone (25%) m3 1.50 5.16 24 2,862 95 Fuel Backhoe 0.8m3 0.25 day " Tampa 60-100kg 50 0.3 day 63 7,555 Sub Total 2 Labor 10 1,146 38.20 Foreman man,day 0.25 14 1,716 14.30 Labor man.day 990 33 Backhoe 0.8m3 man.day: 0.25 32 3,852 Sub Total 3 Equipment 2,820 2,820 11,280 Backhoe 0.8m3 0.25 day 53 0.25 212.40 Tampa day 2.873 2.873 Sub Total 95 Total 2,873 14,280 0.95 Unit Price per m 28.73 142.80 15% 4.31 0.14 21.42 INDIRECT COST 33.04 1.09 164.22 TOTAL

	Reinforcement	· · · · · · · · · · · · · · · · · · ·			· ·		Total estimate	US\$=¥120				
No	Work Item	Unit	Quantity			Ba	Unit	Cost	Total			
		- [		Material		Labor		Equipment		Am	ount	in
_		1	l · _ [	FC	LC	FC	LC	FC	LC_	FC	LC	YEN
1	Material											
	Reinforcement bar	ton	2.70	0	360.00		}	i		0	972	116.64
	Wasted re~ bar(1.5%)	ton	0.04	0	360.00					0	15	1,78
	Miscellaneous	L.S.	1.00	0	5.50				·	0	6	66
٠.	Fuel Truck crane 16t	day	0.64	0	77			1		0	49	5,8
	" Truck 8t	day	0.64	0	80		1	{	1	0	51	6,10
	" Generator 45KVA	day	1.4	0	24					0	33	3,99
	Sub Total						1			0	1,125	135,05
2	Labor	1									. [	
	Foreman	man.day	1	1		, ,	38.20		]	0	38	4,5
	Labor	man.day	6			, t	14.30			0	86	10,2
	Welder	man.day	1.4	ļ		י ל	23.09	Ì		0	32	3,8
	Truck crane 16t	ļman.day	0.64			Ū	33			0	. 21	2,50
	Truck 8t	man.day	0,64		-	t	33	)	j	.0	21	2,53
	Generator 45KVA	man.day	1.4	1		. 0	33	}	ļ	0	46	5,54
	Sub Total		1		·					0	245	29,3
3	Equipment											
	Truck crane 16t	day	0.64					9,480	0	6067.2	O	6,06
	Truck 8t	day	0.64	[	·		-	3,480	0	2,227	D	2,2
	Generator 45KVA	day	1.4					1,080	0	1,512	0	1,51
	Bar cutter	day	1.4	1				1	0	1	0	
	Bar bender	day	1.4				İ	1	0	1	D	
	Sub Total					· · · · · · · · · · · · · · · · · · ·		<u> </u>	<u> </u>	9,809	0	9,80
					•			Total		9,809	1,370	174,23
	· · · · · · · · · · · · · · · · · · ·							Unit Price p		98.09	13.70	1,742.3
	INDIRECT COST		<del></del>					~~~	15%	14.71	2.06	261.3
	TOTAL									112.81	15.7 <u>6</u>	2,003.7

	2H13U4		·			1.5	LC: US\$					5 400	1/04-3240
	Concrete Placing		· · · · · · · · · · · · · · · · · · ·		Total estimate	US\$=¥120							
No	Work Item	Unit	Quantity		· · · · · · · · · · · · · · · · · · ·	Ba	Unit C	Total					
		ļ	<u> </u>	Material		Labor		Equipment		Am-			in
		<u> </u>		FC	LC	FC	LC	FC	LC		FC	LC	YEN
1	Material						1		Ì				
	Concrete cover	Nos	200.00	44.16	8.61	j.				ł	0	1,722	206,64
	Ready mixed concrete	m3	20.00	0	67.00					ŀ	0	1,340	160,80
	Wasted concrete(5%)	m3	1.00	0	67.00			1	<u> </u>		0	67	8,04
	Formwork	m2 .	311.00	. 0	5.50		1			- 1	0	1,711	205,2€
	Elas tigh board	m2	1.60	0	5.50	5				[	0	9	1,05
	Fuel Truck crane 16t	day	1	0	. 77		1	1		- 1	0	. 77	9,18
	" Concrete mixer 0.6m3	day .	1	0	0	-	{			-	0	٥	
	" Generator 45KVA	day	1	0	24				l	Ì	0	24	2,88
	" Truck 8t	day	0.64	0	80			1	1		0	51	6,13
	Sub Total						1			1	0	5,000	599,91
2	Labor						-	1		- 1		<b>.</b>	•
	Foreman	man.day	1	:			0 38.2	ł .		ŀ	0	38	4,58
	Labor	man.day	6				0 14.3	이			0	86	10,29
	Truck crane 16t	man.day	1				0 3	3			0	33	3,96
	Generator 45KVA	man.day	1				0 3	3			0	33	3,96
	Truck 8t	man,day	0,64				0 3	3			. 0	21	2,50
	Sub Total	1							•	ı	D	211	25.33
. 3	Equipment		1		٠				1.	1			
	Truck crane 16t	day	1				1	9,480	Ę.	0	9480	0	9.48
	Concrete mixer 0.6m3	day	1				. ]	6,480	4	O	6,480	O	6,48
	Generator 45KVA	day	1				1	. 1,080		0	1,080	٥	1,08
	Truck 8t	day	0.64				İ	3,480		이	2,227	0	2,22
	Vibrator	day	1					120	ļ	0	120	0	1:
	Sub Total	<u> </u>					<u> </u>	<u> </u>	<u> </u>		19,387	O	19,38
								Total	-	1	19,387	5,211	644,6
					1.0	· ·		Unit Price p			193.87	52.11	6.446.9
	INDIRECT COST									15%	29.08	7.82	967.0
	TOTAL									1	222.95	59.93	7,413.9

2H1305

Backfill sand & Compaction							LC: US\$	Total estimat	US\$=¥120			
No	Work Item	Unit	Quantity			В	asic Price		Unit	Total		
				Material		Labor		Equipment		Amount		in
	·			FC	LC	FC	LC	FC	ГC	FC_	LC	YEN
1	Material											
	Backfill sand	m3	24	o	4.00		ļ			. 0	96	11,520
	Wasted Backfill sand (25%)	m3	6	0	4.00	,	1		1	0	24	2,880
	Fuel Backhoe 0.8m3	day	0.3	0	95					0	29	3,434
}	" Tire roller 8-20t	day	0.3	0	55	1		}	}	0	17	1,985
	" Tampa	day	0.5	o	. 2			<b>i</b> .	2	0	1	99
	Sub Total									. 0	166	19,918
2	Labor				-				·			
	Foreman	man,day	0.5		.	٥	38.20	İ		. 0	19	2,292
	Labor	man.day	2	1	}	Ø	14.30		}	0	29	3,432
	Backhoe 0.8m3	man.day	0.3		İ	0	33		·	0	10	1,188
	Tire roller 8-20t	man.day	0.3	1		0	33	1		g	10	1,188
	Sub Total			· [						. 0	68	8,100
3	Equipment			.								
	Backhoe 0.8m3	day	0.3	1	i			11,280	o	3,384	0	3,384
	Tire roller 8-20t	day	0.3					3,500	0	1,050		1,050
	Tampa	day	0.5	. 1	. ]			212.40	0	106	o	106
	Sub Total									4,540	0	4,540
								Total		4,540		32,558
							•	Unit Price pe	er m	45.40	2.33	325.58
	INDIRECT COST								15%	6.81	0.35	48.84
	TOTAL									52.21	2.69	374.42

UNIT

FC: YEN

8,61

Cover for trench type 1

LC: US\$ Total estimate for 5904Nos. US\$=¥120 Work Item Unit Total Quantity Unit Cost No Basic Price in Amount FÇ LC FÇ LC YEN 197,823,00 5,904 33.51 2.83 16,691,81 2,200,841 Fabrication reinforcement bar 2H1301 Nos Production of trench cover 5,904 11.00 5.79 64,915,20 34,167,90 4,165,064 Nos 2H1302 262,738.20 50,859,72 6.365,904.29 Total

Unit Price per No.

UNIT FC: YEN

Fabrication of Reinforcement bar LC: US\$ Total estimate for 28 Nos US\$=¥120 Basic Price Unit Cost Total No Work Item Unit Quantity Labor Material Equipment Amount in FC FC LC FC LC LC FC LC YEN Material Reinforcement bar D10-D13 ton 17.20 406,80 6,997 839635 Wasted " (2%) 0.34 406.8 140 16,793 ton Small size steel 215 0.407 87 10495 kg Welding rod 2.1 137 16,380 65.0 kg 82 734 88.085 Fuel Truck crane 16t 9.0 day 37 624 74,827 Generator 45KVA 17.0 day Truck 8t day 17.0 43 736 88,291 Sub Total 9,454 1,134,507 2 Labor 77,928 17.0 38.2 649 Foreman manday 14.3 2,431 291,720 Lebor manday 170,0 33 561 67,320 Welder manday 17.0 Truck crane 16t 9.0 33 297 35,640 day Generator 45KVA day 17.0 33 561 67,320 Truck 8t day 17.0 33 561 67,320 Sub Total 5,060 607,248 3 Equipment 85,320 Truck crane 16t 9.0 9.480 85,320 dayunit 18,360 Generator 45KVA dayunit 17.0 1.080 18,360 3,480 Truck 8t 17.0 59,160 59,160 dayunit 4,590 Bar Cutter day unit 17.0 270.00 4,590 Bar Bender day.unit 17.0 270.00 4,590 4.590 Sub Total 172,020 172,020 Total 172,020 14,515 1,913,775 Unit Price per No. 29.14 2.46 324.15 INDIRECT COST 4.37 0.37 48.62 15% TOTAL 2.83

UNIT FC: YEN

LC: US\$ Total estimate for 5904 Nos US\$=¥120 Production of cover of manhole Basic Price Unit Cost Total Work Item Unit | Quantity Νo Amount: in Material Labor Equipment FC LC YEN LC FC FC LC FC LC 1 Material 908520 7,571 67.00 Ready mixed concrete m3 113 151 18,170 67.0 m3 Wasted " (1.5%)1.7 271200 2,260 m2 1,130 2.0 Metal form bottom 680,160 5,668 5.2 Metal form side m2 1,090 51,936 433 43 Fuel Truck 8t day 10.0 44,016 37 367 Generator 45KVA day 10.0 16.083 1,974,002 Sub Total 2 Labor 183,360 38.2 1,528 40.0 manday Foreman 1,372,800 14.3 11,440 800 Labor manday 33 330 39,600 10.0 day Truck 8t 330 39,600 10.0 Generator 45KVA day 13.628 1,635,360 Sub Total 3 Equipment 34,800 34,800 10.0 3,480 Truck crane 8t dayunit 10,800 1.080 10,800 10.0 Generator 45KVA dayunit 10,848 135.60 10,848 Vibrator day.unit 80.0 56,448 56,448 Sub Total Total 56,448 29,711 3.665.810 Unit Price per No. 9.56 5.03 620.90 15% 1.43 0.75 93.14 INDIRECT COST 5.79 714

**TOTAL** 

2H14

	Trench Type 1 with grating cover			<u>.</u>	_C: US\$	Total estimate for	r 100m	US\$=¥120
No	Work Item	Unit	Quantity	Basic F	Price	Unit	Cost	Total
						Amo	ount	in ·
				FC	LC	FC	LC	YEN
2H1401	Excavation & Disposal	М	100	62	1.25	6,210	124.81	21,187
2H1402	Crushed Stone for Foundation	М	100	33	1.09	3,304	109.32	16,422
2H1403	Reinforcement	M	100	113	12.40	11,281	1,239.61	160,033
2H1404	Concrete Placing	М	100	223	183.64	22,295	18,364.20	2,225,999
2H1405	Backfill Sand & Compaction	М	100	52	2.28	5,173	228.25	32,563
	Total	11				48,263	20,066.19	2,456,205
				Unit Price per m		483	200,66	24,562

	Excavation & Disposal	ed Trench				LC: US\$			Total estimate	e for 100 m	US\$=¥120	
No	Work Item		Quantity			Ba	sic Price			Unit	Cost	Total
			l	Mate	rial	L.	abor	Equipr	ment	Amo	ount	in
				FC	LC	FC	7	FC	LC	FC	LC	YEN
1	Material											
	Excavation sand	m3	59	0	0.00					0	이	(
	Fuel Backhoe 0.8m3	day	0.3	0	95					0	29	3,43
	" Dump truck 10t	day	0.3	o	105		,			. 0	31	3,77
	Sub Total	ļ.			1					0	60	7,21:
2	Labor							·			·	
	Foreman	man.day	0.3		1	Ø	38.20			. 0	11	1,37
	Labor	man.day	1.2			0	14.30			0	. 17	2,05
	Backhoe 0.8m3	man,day	0.3	1	Ì	O	. 33			0	10	1,188
	Dump truck 10t	man.day	0.3		ŀ	0	33	·		. 0	10	1,188
	Sub Total	ļ			Ì					0	48	5,810
3	Equipment							ļ				
	Backhoe 0.8m3	day	0.3					11,280	0	3,384	o	3,384
	Dump truck 10t	day	0.3		:			6,720	0	2,016	0	2,016
	Sub Total									5,400	0	5,400
_								Total		5,400	109	18,423
	1 to 1			·				Unit Price pe	er m	54.00	1.09	184.23
	INDIRECT COST								15%	8.10	0.16	27.64
	TOTAL.									62	1.25	212

2H1402

No	Grushed stone for Found Work Item		Quantity	renca	·		LC: US\$ ic Price			Total estimate Unit	Cost	US\$=¥12 Total
				Mate	erial		bor	Equipn	nent	<del>,                                     </del>	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
- 1	Crushed stone	m3	6.00	0	5.16	-		1			31	3,71
1	Nasted crushed stone (25%)	m3	1.50	0	5.16						8	92
Ì	Fuel Backhoe 0.8m3	day	0.25	0	95		4.	j		0	24	2,86
-	" Tempa 60-100kg	day	0.3	0	2					0	0	. 5
- 1	Sub Total			. [	. [	ĺ					63	7,55
2	Labor				Ì	İ		·				
	Foreman	man.day	0.25	· }		0	38.20			0	10	1,14
- 1	Labor	man.day	1	1		0	14,30	Ì		o	14	1,71
ŀ	Backhoe 0.8m3	man.day	0.25			0	33			ol	8	99
	Sub Total			1	i				•	ol	32	3,85
3	Equipment				J	j	l	j		]	j.	
1	Backhoe 0.8m3	day	0.25					11,280	0	2,820	0	2,82
	Tampa	day	0.25		ļ		·	212,40	0	53	0	
	Sub Total				1					2,873	0	2,87
								Total		2,873	95	14,28
							-	Unit Price pe	rm	28.73	0.95	142.8
	INDIRECT COST								15%	4.31	0.14	21.4
	TOTAL			,		·				33.04	1.09	164.2

	Reinforcement					LC: US\$		Total estimate		US\$=¥120		
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
		1		Ma	terial		abor	Equipn			ount	in in
	·		l [	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Reinforcement bar	ton	1.90	0	360.00					0	684	82,08
	Wasted re- bar(1.5%)	ton	0.03	0	360.00	.*				0	10	1,23
	Miscellaneous	L.S.	1.00	. 0	5.50					0	6	66
	Fuel Truck crane 16t	day	0.64	٥	77					0	49	5,88
	" Truck 8t	day	0.64	0	80					0	51	6,13
٠	" Generator 45KVA	day	1.4	0	24					0	33	3,99
	Sub Total	İ								0	833	99,978
2	Labor											
	Foreman	man.day	. 1		*	. (	38.20			0	38	4,58
٠.	Labor	man.day	6				14.30		•	0	86	10,29
	Welder	man.day	1.4			t	23.09			0	32	3,87
	Truck crane 16t	man.day	0.64			t	33			0	21	2,534
	Truck 8t	man.day	0.64			ľ	33			0	- 21	2,534
	Generator 45KVA	man.day	1.4			C	33			0	46	5,544
	Sub Total									0	245	29,372
3	Equipment	1			ļ			77 7 .			•	
• •	Truck crane 16t	day	0.64					9,480		6067.2	. 0	6,06
	Truck 8t	day	0.64					3,480		2,227	0	2,22
	Generator 45KVA	day	1.4				1	1,080	. (	1,512	O	1,512
	Bar cutter	day	1.4					1	´ · ·	) 1	O	. •
	Bar bender	day	1.4					1	· (	1	0	•
	Sub Total					·				9,809	0	9,809
								Total		9,809	1,078	139,159
	and the second			.*				Unit Price pe		98.09	10.78	1,391.59
	INDIRECT COST								1 5%	14.71	1.62	208.74
	TOTAL									112.81	12.40	1,600.33

# LA UNION PORT DEVELOPMENT PROJECT 2H1404 Concrete Planing

	Concrete Placing						LC: US\$		Total estimat	e for 100 m	US\$≃¥120	
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
					iterial		abor	Equip			ount	in
L				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
1	Grating cover	Nos	100.00	0	124.80	<b>.</b>		1.		0	12 480	1,497,600
1	Ready mixed concrete	m3	20.00	. 0	67.00	· ·				٥	1,340	160,800
1.	Wasted concrete(5%)	m3 .	1.00	- 0	67.00	ļ				0	67	8,040
	Formwork	m2	311.00	0	5.50			1	}	0	1,711	205,260
	Elas tigh board	m2	1.60	0	5.50	}		<b>!</b>		0	9	1,05€
	Fuel Truck crane 16t	day	. 1	0	77					0	77	9,187
	" Concrete mixer 0.6m3	day	1	0.	0		ļ		·	0	O	
}	" Generator 45KVA	day	1	0	24		}			0	24	2,851
1	" Truck 8t	day	0.64	. 0	80					0	51	6,136
	Sub Total								1	0	15,758	1,890,930
2	Labor					<u> </u>				,		
i	Foreman	man.day	1		1	0	38.20			0	38	4,584
1.	Labor	man.day	6			1 0	14.30			0		10,296
	Truck crane 16t	man.day	1,				33			0	33	3,960
l	Generator 45KVA	man.day	1			0	33	1	ŀ	.} o,	33	3. <b>96</b> 0
	Truck 8t	man.day	0.64			0	33			0	21	2,534
	Sub Total									0	211	25.334
3	Equipment	<u> </u>					}	1				
	Truck crane 16t	day	1			[		9,480	( c	9480	ø	9,480
	Concrete mixer 0.6m3	day	1				1	6,480	i] - c	6,480	o o	6,480
	Generator 45KVA	day	1			}		1,080	c	1,080	σ	1,080,1
l	Truck 8t	day .	0.64			}	1	3,480		2.227	o	2,227
	Vibrator	day	1					120	C	120	σ	120
<u> </u>	Sub Total		· I					<u> </u>		19,387	0	19,387
								Total		19,387	15,969	1,935,652
								Unit Price p		193.87	159.69	19,356.52
	INDIRECT COST								15%	29.08	23.95	2,903.48
	TOTAL									222.95	183.64	22,259.99

	<b>Backfill sand &amp; Compact</b>			· · · · · · · · · · · · · · · · · · ·	<b>.</b>	LC: US\$	·	·	Total estimat	e for 100 m	US\$=¥120	
No	Work Item	Unit	Quantity			В	asic Price			Unit	Cost	Total
	ļ			Mate	rial	L	abor	Equip	ment	Am	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC L	YEN
1	Material											
	Backfill sand	m3	17	0	4.00		,		}	0	68	8,160
	Wasted Backfill sand (25%)	m3	4.25	0	4.00	•			<b>j</b>	. 0	17	2,040
	Fuel Backhoe 0,8m3	day	0.3	0	95				1	0	29	3,434
	" Tire roller 8-20t	day	0.3	ol	55			1		0	17	1,988
	" Tampa	day	0.5	0	2					0	. 1	99
	Sub Total		[.	1						0	131	15,718
2	Labor				İ							
	Foreman	man.day	0.5			Ø	38.2	0		0	19	2,292
	Labor	man.day	2	ĺ	Ì	0	14,3	o <b>(</b>	ļ	0	29	3,432
	Backhoe 0.8m3	man.day	0.3			0	3	3		0	10	1,188
	Tire roller 8-20t	man.day	0.3	ĺ		Ø	. 3	3		0	10	1,188
	Sub Total		]		į				ĺ	0	68	8,100
3	Equipment			!	-					1		
	Backhoe 0.8m3	day	0.3					11,280	0	3,384	0	3,384
	Tire roller 8-20t	day	0.3		i			3,360	l 0	1,008	0	1,008
	Tampa	day	0.5		Ì			212.40	0	106	0	106
	Sub Total									4,498	0	4,498
								Total		4,498	198	28,316
								Unit Price p		44.98	1.98	283.16
	INDIRECT COST								15%	6.75	0.30	42.47
	TOTAL							_		51.73	2.28	325.63

2H15

	Trench Type 2 without cover		·	L	_C: US\$	Total estimate for	r 100m	US\$=¥120
No	Work Item	Unit	Quantity	Basic P	Price	Unit	Cost	Total
						Amo	ount	in
	<u> </u>			FC	LC	FC	LC	YEN
2H1501	Excavation & Disposal	М	100	199	4.02	19,900	402.28	68,174
2H1502	Crushed Stone for Foundation	М.	100	40	1.33	3,965	133.41	19,974
2H1503	Reinforcement	М	100	142	16.22	14,212	1,621.79	208,827
2H1504	Concrete Placing	м	100	197	52.84	19,734	5,284.16	653,833
2H1505	Backfill Sand & Compaction	M	100	102	4.92	10,248	492.36	69,332
	Total					68,059	7,934.00	1,020,139
				Unit Price per m		681	79.34	10,201

	Excavation & Disposal fo	ed Trench				LC: US\$		Total estimate	for 100 m	US\$=¥120		
No	Work Item		Quantity			Ва	asic Price			Unit (	Cost	Total
				Mate	rial	L	abor	Equip	ment	Amo	unt	in
	e .			FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Excavation sand	m3	128	. 0	0.00						0	0
	Fuel Backhoe 0.8m3	day	0.7	0	95						67	8,013
	" Dump truck 10t	day	1.4	0	105						147	17,635
	Sub Total							•			214	25,648
2	Labor	1								1	l	
	Foreman	man.day	0.7			0	38.20	4.		0	27	3,209
	Labor	man.day	2.8			0	14.30		·	0	40	4,805
	Backhoe 0.8m3	man.day	0.7	•		. 0	33				23	2,772
	Dump truck 10t	man.day	1 .1			0	33		ŀ		46	5,544
	Sub Total			.							136	16,330
3	Equipment		1				· .					•
•	Backhoe 0,8m3	day	0.7	[				11,280	[ c	7,896	0	7.896
	Dump truck 10t	day	1.4	İ		,	1.0	6,720	l c	9,408	0	9,408
	Sub Total		ļ ·							17,304	0	17,304
-							<u> </u>	Total		17,304	350	59,281
	and the second s							Unit Price po	er m	173.04	3.50	592.81
	INDIRECT COST		· · · · · · · · · · · · · · · · · · ·						15%	25.96	0.52	88.92
	TOTAL		<del></del>							199	4.02	682

1502

No	Crushed stone for Found Work Item		Quantity			Bas	sic Price			Unit	Cost	Total
				Mat	erial	L	abor	Equipn	nent	Amo	ount	in
				FC	LC	FC	LC	FC_	LC	FC	LC	YEN
1	Material											
	Crushed stone	m3	7.50	. 0	5.16			j		o	39	4,644
	Wasted crushed stone (25%)	m3	1.88	0	5.16	*				0	10 :	1,161
	Fuel Backhoe 0.8m3	day	0.3	o	95		·			0	29	3,434
	" Tampa 60-100kg	day	0.3	0	2					0	0	59
	Sub Total				. 1			1		0	77	9,298
2	Labor			Į.	· [		į i			ļ		
	Foreman	man.day	0.3	j		0	38.20			oj	11	1,375
	Labor	man.day	1.2	. [		0	14.30			0	17	2,059
	Backhoe 0.8m3	man.day	0.3			0	33	٠.		0	10	1,188
	Sub Total			1						0	39	4,622
ં ૩	Equipment			i	. }			· 1				
	Backhoe 0.8m3	day	0.3	- 1			ļ	11,280	0	3,384	σ	3,384
	Tampa	day	0.3		1			212.40	0	64	O	64
	Sub Total			i						3,448	0	3,448
								Total		3,448	116	17,369
				· <b>-</b>				Unit Price pe		34.48	1.16	173,69
	INDIRECT COST								15%	5.17	0.17	26.05
	TOTAL									39.65	1.33	199.74

	Reinforcement						LC: US					otal estimate		US\$=¥12
Nο	Work Item	Unit	Quantity				sic Pric	e			$\perp$		Cost	Total
		ļ			aterial		abor		Equip				ount	in
		<u> </u>		FC	LC	FC	<u>l</u>	С	FC	LC		FC_	LC	YEN
1	Material													
	Reinforcement bar	ton	2.45	0	360.00				•			0	882	105,84
	Wasted re- bar(1.5%)	ton	0.04	0	360.00	!					-	0	13	1,58
	Miscellaneous	LS.	1.00	0	5.50		1.				- {	0	6	66
	Fuel Truck crane 16t	day	0.82	0	77		ļ				-	0	63	7,53
	" Truck 8t	day	0.82	. 0	80							0	66	7,86
	" Generator 45KVA	day	1.6	0	24		-		·			0	39	4,67
	Sub Total										- [	0	1,068	128,15
. 2	Labor	1										·		
	Foreman	man.day	1.6		<b>j</b>	Į		38.20		·			61	7,33
	Labor	man.day	9.6	•				14.30				o	137	16,47
	Welder	man.day	1.6			t		23.09				o	37	4,43
	Truck crane 16t	man.day	0.82			. (		33				o	27	3,24
	Truck 8t	man.day	0.82			. (	) ·	33				. 0	27	3,24
	Generator 45KVA	man.day	1.6			(		33				ol	53	6,33
	Sub Total				4							o	342	41,07
3	Equipment		1									İ		
-	Truck crane 16t	day	0.82		·				9,480		o	7773.6	ס	7.77
	Truck 8t	day	0.82						3,480	•	0	2,854	o	2,85
	Generator 45KVA	day	1.6		٠.				1,080		0	1,728	lo	1,72
	Bar cutter	day	1.6					,	1		0	2	o	
	Bar bender	day	1,6		1				1		0	. 2	ol	
	Sub Total		: [				1		* . *			12,358	O	12,35
-	<u> </u>		·			•			Total		T	12,358	1,410	181,58
									Unit Price pe	er m	Γ	123.58	14.10	1,815.8
	INDIRECT COST									15	5%	18.54	2.12	272.3
•	TOTAL			<del></del>								142.12	16.22	2,088.2

FC: YEN

LC: US\$ Total estimate for 100 m US\$=¥120 Concrete Placing Basic Price Unit Cost Total Work Item Unit Quantity Nο Labor Equipment Amount in Material YEN FC FC LC LC LC FC LC FC 1 Material 217,080 27.00 67.00 1,809 Ready mixed concrete m3 10,854 1.35 90 Wasted concrete(5%) m3 67.00 287,100 435.00 5.50 2.393 Formwork m2 5.50 13 1,518 Elas tigh board m2 2.30 77 9,187 77 Fuel Truck crane 16t Concrete mixer 0.6m3 24 2,851 Generator 45KVA day 24 4,405 528,590 Sub Total 2 Labor 4,584 38.20 38 Foreman man.day 10,296 14.30 86 Labor man.day 33 3,960 33 Truck crane 16t man.day 3,960 33 33 Generator 45KVA man.day 190 22,800 Sub Total 3 Equipment 9,480 9,480 9480 Truck crane 16t day 6,480 6.480 6,480 Concrete mixer 0.6m3 day 1,080 1,080 1,080 Generator 45KVA day 120 120 120 Vibrator day 17,160 17,160 Sub Total 568,550 Total 17,160 4,595 Unit Price per m 45.95 5,685,50 171.60 15% 25.74 6.89 852.83 INDIRECT COST TOTAL 197.34 52.84 6,538,33

2H1505

	Backfill sand & Compacti	on					LC: US\$			Total estimat	e for 100 m	US\$=¥120
No	Work Item	Unit	Quantity			Ba	sic Price			Unit	Cost	Total
		1.		Mate	rial	Ì.	abor	Equipr	nent	Am	ount	in in
·				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
1	Backfill sand	m3	48	0	4.00	·		}		0	192	23,040
	Wasted Backfill sand (25%)	m3	12	o	4.00		·			0	48	5,760
1	Fuel Backhoe 0.8m3	day	0.6	0	95	1.		•		0	57	6,868
	" Tire roller 8-20t	day	0.6	0	55	. " 				0	33	3,969
1	" Tampa	day	0.6	0	2					- 0	1	119
1	Sub Total			1	1		1.	·		0	331	39,756
2	Labor							·		Į	·	
	Foreman	man.day	0.6	1		Ø	38.20			0	23	2,750
	Labor	man.day	2.4			Ø	14.30		·	0	34	4,118
	Backhoe 0.8m3	man.day	0.6		-	O	33			0	20	2,376
	Tire roller 8-20t	man.day	1 1	-		. 0	33		·	0	20	2,376
<b>l</b> .	Sub Total			1		i		}		0 '0	97	11,621
į.	Equipment			. 1					•		<b>.</b> .	
1	Backhoe 0.8m3	day	0.6			•		11,280	0	6,768	o	6,768
	Tire roller 8-20t	day	0.6	1				3,360	. 0	2,016	o	2,016
	Tampa	day	0.6	1	1			212.40		127	! · i	127
	Sub Total			Ì	İ			.1.		8,911	o	8,911
L	100-101		<del></del>					Total		8,911	428	60,288
								Unit Price pe	er m	89.11	4.28	602.88
	INDIRECT COST	<u></u>	<del></del>						15%		<del>                                     </del>	90.43
<del></del>	TOTAL		<u> </u>		<del></del>			· · · · · · · · · · · · · · · · · · ·		102.48		693.32

2H16

	Trench Type 2 with concrete cove	r.			LC: US\$	Total estimate fo	r 100m	US\$=¥120
No	Work Item	Unit	Quantity	Basic F	Price	Unit	Cost	Total
}	•					Am	ount	in
L		_ [		FC	LC	FC	LC	YEN
2H1601	Excavation & Disposal	M	100	199	4.02	19,900	402.28	68,174
2H1602	Crushed Stone for Foundation	M	100	40	1.33	3,965	133.41	19,974
2H1603	Reinforcement	М	100	142	16.22	14,212	1,621.79	208,827
2H1604	Concrete Placing	М	100	237	78.76	23,736	7,876.25	968,886
2H1605	Backfill Sand & Compaction	M	100	102	3.72	10.248	371.61	54,842
	Total			l	·	72,061	10,405.34	1,320,701
				Unit Price per m		721	104.05	13,207

Excavatio	n & Disposal	for U-shap	ed Trench				LC: US\$			Total estimate	for 100 m	U\$ <b>\$=</b> ¥12
	ork Item		Quantity			Ва	sic Price			Unit C	Cost	Total
				Mate	rial	L	abor	Equip	ment	Amot	unt	in
3				FC .	LC	FC	LC	FC	LC	FC	LC	YEN
1 Material												
Excavation	sand	m3	93	0	0.00						0	
Fuel Backh	oe 0.8m3	day	0.7	0	95						67	. 8,0
" Dump	truck 10t	day	1.4	o	105		* :				147	17,6
Sub Total				1		·				0	214	25,6
2 Labor				1								
Foreman		man.day	0.7	1	İ	0	38.20				27	3,2
Labor		man.day	2.8		• •	0	14,30				40	4,8
Backhoe 0.	8m3	man.day	0.7		i	0	33			0	23	2,7
Dump truck	c10t	man.day	1.4	1	İ	O	33	•		0	46	5,5
Sub Total				İ						0	136	16,3
3 Equipment				1							į	
Backhoe 0.8	8m3	day	0.7					11,280	0	7,896	o i	7,8
Dump truck	c 10t	day	1.4					6,720	0	9,408	o	9,4
Sub Total										17,304		17,3
			•	· ·				Total		17,304	350	59,2
					· .	···		Unit Price pe		173.04	3.50	592
INDIRECT	COST		15%	25.96	0.52	88						
TOTAL										199	4.02	6

2H1602

No	Crushed stone for Found Work Item		Quantity	<u></u>			LC: US\$ ic Price			Total estimate Unit C		US\$=¥120 Total
				Mat	terial	Ĺ	abor	Equip	ment	Amoi	unt	in
				FC_	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Crushed stone	m3	7.50	0	5.16			•		0	39	4,64
	Wasted crushed stone (25%)	m3	1.88	0	5.16					0	10	1,16
	Fuel Backhoe 0.8m3	day	0.3	0	95				ŀ	0	29	3,434
	" Tampa 60-100kg	day	0.3	0	. 2			·	<u> </u>	0	0	59
	Sub Total				]		,			] 0	77	9,298
2	Labor			i							1	
	Foreman	man.day	0.3		Ì	0	38.20	·			11	1,375
	Labor	man.day	1.2			0	14.30		ļ	0	17	2,059
	Backhoe 0.8m3	man.day	0.3			a	33			0	10	1,188
	Sub Total			-						0	39	4,622
3	Equipment			j	}					].	ļ	
	Backhoe 0.8m3	day	0.3	1		' l		11,280	0	3,384	0	3,384
	Tampa	day	0.3		·			212.40	0	64	0	64
	Sub Total					_				3,448	0	3,448
								Total		3,448	116	17,369
	·				·			Unit Price pe		34.48	1.16	173.69
	INDIRECT COST								15%	5.17	0.17	26.05
	TOTAL									39.65	1.33	199,74

2H1603

	2H1003						FU: TEN			-		
	Reinforcement					<u></u>	LC: US\$	<u></u>		Total estimat	<del></del>	US\$=¥12
No	Work Item	Unit	Quantity			Bas	sic Price			Unit	Cost	Total
				Ma	terial	L	abor	Equip	ment	Am	ount	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
. 1	Material											
	Reinforcement bar	ton	2.45	0	360.00				1	). o	882	105,84
	Wasted re- bar(1.5%)	ton	0.04	0	360.00				j ·	0	13	1,58
	Miscellaneous	L.S.	1.00	0	5.50					0	6	66
	Fuel Truck crane 16t	day	0.82	0	77				1	]. 0	63	7,53
	" Truck 8t	day	0.82	. 0	80		[			0	66	7,86
	" Generator 45KVA	day	1.6	0	24					0	39	4,67
	Sub Total		1							0	1,068	128,15
2	Labor	İ										
	Foreman	man.day	1.6			o	38.20			0	61	7, <b>3</b> 3
	Labor	man.day	9.6			0	14.30	i .		0		i
	Welder	man,day	1.6		·	0	23.09	1 .		0	37	i
	Truck crane 16t	man.day	0.82			· 0	33	4		. 0	27	ì
	Truck 8t	man.day	0.82			0	33		1	0	27	3,24
	Generator 45KVA	man day	1.6			0	] 33	·	ļ	0	53	6,33
	Sub Total								·	0	342	I .
3	Equipment											
	Truck crane 16t	day	0.82					9,480	0	7773,6	. 0	7,77
	Truck 8t	day	0.82					3,480		2,854	b b	2,85
	Generator 45KVA	day	1.6					1,080	1	1,728	. 0	1,72
•	Bar cutter	day	1.6					1	ົດ	2	n	
•	Bar bender	day	1.6	Ì				1	ľ	2	n	
	Sub Total	,							•	12,358	0	12,35
	1000 1000		<u>1</u>				L	Total	<del></del>	12,358	1,410	
								Unit Price p	er m	123.58		
	INDIRECT COST		<del></del>	·····			· · · · · · · · · · · · · · · · · · ·	_ <u></u>	15%		2.12	
	TOTAL				· · · · · · · · · · · · · · · · · · ·		<del></del>			142.12	16.22	2,088.2

2H1604

	Concrete Placing	1		· ·			LC: US\$	····		Total estimat		US\$=¥12
No	Work Item	Unit	Quantity	· · · · · · · · · · · · · · · · · · ·			sic Price	<del></del>			Cost	Total
		( )	( ·		terial		abor	Equip			ount	in
		<u> </u>		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material	1	[									
	Concrete cover	Nos	250.00	53.76	9.69		<b>∤</b> • •			0	2,423	290,70
	Ready mixed concrete	m3	23.00	. 0	67.00					0	1,541	184,9
	Wasted concrete(5%)	m3	1.15	0	67.00			·		0	77	9,2
	Formwork	m2	435.00	0	5.50		•	·		0	2,393	287,1
	Elas tigh board	m2	2.30	0	5.50					0	13	1,5
	Fuel Truck crane 16t	day	1	0	77		·			0	77	- 9,1:
	" Concrete mixer 0.6m3	day	1	. 0	. 0					0	0	
	" Generator 45KVA	day	1	0	24					0	24	2,8
	" Truck 8t	day	1	0	80					0	80	9,5
	Sub Total	1					· ·	i .		0	6,626	795,1
2	Labor	1	} '							}		
	Foreman	man.day	1			. 0	38.20			0	38	4,5
	Labor	man.day	6	·		. 0	14.30			0	86	10,2
	Truck crane 16t	man.day	1)			· 0	33	]	}	٥	33	3,9
٠.	Generator 45KVA	man.day	1			ס	33			1 0	33	3,9
	Truck 8t	man.day	1			. 0	33			<b> </b> 0	33	3,9
	Sub Total		ļ ·	·						, o	223	26,7
3	Equipment	<b>(</b>						Ì		. [	1	
	Truck crane 16t	day	. , 1					9,480		0 9480	o	9,4
	Concrete mixer 0.6m3	day					.*	6,480		0 6,480		6,4
	Generator 45KVA	day						1,080		0 1,080		1,0
	Truck 8t	day	1	·				3,480		0 3,480	: :	3,4
	Vibrator	day	1					120	1	0 120	i :	1
	Sub Total	,	]					120		20,640	1 1	20,6
	·		L		·	<del></del>	·	Total	<del></del>	20,640	<del>                                     </del>	842,5
•						- :		Unit Price pe	er m	206,40	68.49	8,425.
	INDIRECT COST	<del></del>	<del></del>			·····				30.96		1,263.
	TOTAL		······································	<del></del>						237.36	<del></del>	9,688

2H1605

	Backfill sand & Compacti				Ł	_C: US\$			Total estimate	e for 100 m	US\$=¥120	
No	<del></del>	Unit	Quantity			Bas	sic Price			Unit	Cost	Total
				Mate	rial	La	bor	Equip	ment	Amo	ount	in
		<u> </u>		FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Backfill sand	m3	27	0	4.00		•			0	108	12,960
	Wasted Backfill sand (25%)	m3	6.75	0	4.00		4 4		·	0	27	3,240
	Fuel Backhoe 0.8m3	day	0.6	0	95					0	. 57	6,868
	" Tire roller 8-20t	day	0.6	0	55	1				0	33	3,969
	" Tampa	day	0.6	0	2					. 0	. 1	119
	Sub Total									0	226	27,156
2	Labor											
	Foreman	man.day	0.6		]	٥	38.20			0	23	2,750
	Labor	man.day	2.4		ĺ	o	14.30			0	34	4,118
	Backhoe 0.8m3	man.day	0.6			o	33			0	20	2,376
	Tire roller 8-20t	man.day	0.6	Ī	Ì	0	. 33			0	20	2,376
	Sub Total									0	97	11,621
. 3	Equipment									·		
	Backhoe 0.8m3	day	0.6	.	,			11,280	. 0	6,768	0	6,768
	Tire roller 8-20t	day	0.6	1				3,360	. 0	2,016	0	2.016
	Tampa	day	0.6		1			212.40	0	127	0	127
	Sub Total									8,911	0	8,911
								Total		8,911	323	47,688
								Unit Price pe		89,11	3.23	476.88
	INDIRECT COST								15%	13.37	0.48	71.53
	TOTAL									102.48	3.72	548.42

2H16

UNIT FC: YEN

	Cover for trench type 2				LC: US\$	Total estimate for	1613Nos	US\$=¥120
No	Work Item	Unit	Quantity	Basic Price		Unit Cost		Total
İ						Amount		in
				FC	LC	FC	LC	YEN
2H1601	Fabrication reinforcement bar	Nos	1,613	42.09	3.62	67,896.00	5,834.03	767,979
2H1602	Production of trench cover	Nos	1,613	12.07	6.07	19,474.56	9,791.79	1,194,489
	Total	<u> </u>			<u> </u>	87,370.56	15,625.82	1,962,468.47
				Unit Price per No		54	9.69	1,217

UNIT FC: YEN

LC: US\$ Total estimate for 1613 Nos US\$=¥120 Fabrication of Reinforcement bar Unit Cost Total Basic Price Work Item Unit | Quantity No in Material Labor Equipment Amount YEN FC LC FC LC FC FC LC LC 1 Material 2,441 292896 6.00 oi 406.80 Reinforcement bar D10-D13 ton 49 5,858 0.12 406.8 Wasted " (2%) 3661 75 0.407 Small size steel kg 48 5.796 23.0 2.1 Welding rod 29,362 245 3.0 82 day Fuel Truck crane 16t 220 26,410 37 Generator 45KVA day 6.0 260 31.162 43 6.0 Truck 8t lday 3,293 395,144 Sub Total 2 Labor 27,504 229 38.2 manday 6.0 Foreman 102,960 14.3 858 manday 60.0 Labor 33 198 23,760 6.0 manday Welder 11.880 33 99 3.0 Truck crane 16t day 23,760 33 198 6.0 Generator 45KVA day 33 198 23,760 Truck 8t day 6.0 1,780 213,624 Sub Total 3 Equipment 28,440 9,480 28,440 Truck crane 16t 3.0 dayunit 6.480 6.0 1.080 6,480 Generator 45KVA dayunit 3,480 20,880 20,880 dayunit 6.0 Truck 8t 1,620 1,620 6.0 270.00 Bar Cutter day.unit 1,620 1,620 270.00 6.0 Bar Bender day.unit 59,040 59,040 Sub Total Total 59,040 5.073 667,808 Unit Price per No. 36.60 3.15 414.02 0.47 62.10 15% 5.49 INDIRECT COST 42 3.62 476 TOTAL

UNIT

Production of cover of manhole

FC: YEN

LC: US\$ Total estimate for 1613 Nos US\$=¥120 Basic Price Unit Cost Total Work Item Unit | Quantity Material Labor Equipment Amount in FC FC LC YEN LC FC LC FC LC 1 Material 67.00 2,278 273360 Ready mixed concrete m3 Wasted " 5,467 46 (1.5%)m3 0.5 67.0 339 678 81360 Metal form bottom m2 2.0 Metal form side m2 249 5.2 1,295 155,376 Fuel Truck 8t day 3.0 43 130 15,581 Generator 45KVA 3.0 37 110 13,205 Sub Total 4,426 544,349 2 Labor 458 55.008 12.0 38.2 Foreman manday Labor 240 14.3 3,432 411.840 manday 99 Truck 8t 3.0 11,880 day 3.0 99 11,880 Generator 45KVA day Sub Total 4.088 490,608 3 Equipment 10,440 10,440 Truck crane 8t 3.0 3,480 dayunit 3,240 3,240 dayunit 3.0 1,080 Generator 45KVA 135.60 3,254 3,254 Vibrator day.unit 24.0 16,934 16,934 Sub Total Total 1,051,891 16,934 8,515 Unit Price per No. 652.13 10.50 5.28 INDIRECT COST 15% 1.57 0.79 97.82 750 TOTAL 12 6.07

2H17

FC: YEN

34.643

282.69

LC: US\$ Total estimate for 100m US\$=¥120 Trench Type 2 with grating cover Unit Basic Price Unit Cost Total Work Item Quantity Amount in FC LC FC LC YEN 68.174 Excavation & Disposal 199 4.02 19,900 402.28 М 100 133.41 19,974 2H1702 Crushed Stone for Foundation М 100 40 1.33 3,965 2H1703 Reinforcement 142 16.22 14,212 1,621.79 208,827 100 257.34 23,736 3,111,785 25,733,74 2H1704 | Concrete Placing М 100 237 377.36 55,532 3.77 10,248 2H1705 Backfill Sand & Compaction М 100 102 28,268,58 3,464,290 72,061 Total

Unit Price per m

10	Excavation & Disposal for Work Item	Unit	Quantity			Ва	sic Price			Unit C	ost	Total
				Mater	rial	L	abor	Equipr	ment	Amou	int	in
				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material									T	1	
	Excavation sand	m3	87	0	0.00					0	. 0	
	Fuel Backhoe 0,8m3	day	0.7	0	95		•	• •	,	0	67	8,0
	" Dump truck 10t	day	1.4	이	105					0	147	17,6
	Sub Total	1			- [					0	214	25,6
2	Labor			1	1							
	Foreman	man.day	0.7			0	38.20	ŀ		0	27	.3,2
	Labor	man.day	2.8		ļ	0	14.30			0 -	40	4,8
	Backhoe 0.8m3	man.day	0.7			0	33			0	23	2.7
	Dump truck 10t	man.day	1.4	1		0	33			0	46	5,5
	Sub Total		i l	[						0	136	16,
3	Equipment										i i	
	Backhoe 0.8m3	day	0.7	. [				11,280	C	7,896	o	7.5
	Dump truck 10t	day	1.4				-	6,720		9,408	0	9,4
	Sub Total				-					17,304	0	17,3
	<del>*,·</del>		· · · · · · · · · · · · · · · · · · ·					Total		17,304	350	59,2
								Unit Price pe	erm	173.04	3.50	592
	INDIRECT COST				·			,	15%	25.96	0.52	88
_	TOTAL			······································			· · · · · · · · · · · · · · · · · · ·			199	4.02	6

Crushed stone for Foun	dation of	U-shape	d trench			LC: US\$			Total estimat		US\$=¥12
No Work Item	Unit	Quantity			Bas	ic Price			Unit	Cost	Total
		[	Mat	terial	L	abor	Equip	ment	Am	ount	in
	1.	<b></b>	FC	LC	FC	LC	FC	LC	FC	LC	YEN
1 Material											-
Crushed stone	m3	7.50	0	5.16				•	0	39	4,6
Wasted crushed stone (25%	m3	1.88	0	5.16					0	. 10	1,1
Fuel Backhoe 0.8m3	day	0.3	. 0	95					0.	29	3.4
" Tampa 60-100kg	day	0,3	0	2	·				0	. 0	
Sub Total				!					. 0	77	9,2
2 Labor			1					٠.			
Foreman	man.day	0.3			. 0	38.20			0	11	1,3
Labor	man.day	1.2	ł		0	14.30			0	17	2,0
Backhoe 0.8m3	man.day	0.3			0	33			0	10	1,1
Sub Total									0	39	4,6
3 Equipment		1	ł								
Backhoe 0.8m3	day	0.3					11,280	0	3,384	. 0	3,3
Tampa	day	0.3		1			212.40	0	- 64	0	
Sub Total									3,448	0	3.4
				•			Total		3,448	116	17,3
						·	Unit Price pe		34.48	1.16	173.
INDIRECT COST								15%	5.17	0.17	26.
TOTAL									39.65	1.33	199.

FC: YEN

LC: US\$ Total estimate for 100 m US\$=¥120 Reinforcement Unit Cost Nο Work Item Unit Quantity **Basic Price** Total Amount Material Labor Equipment in LC FC LC YEN FC FC LC FC LC 1 Material 360.00 882 105,840 Reinforcement bar 2.45 ton 360.00 13 1,588 Wasted re- bar(1.5%) 0.04 ton L.S. 660 Miscellaneous 1.00 5.50 63 7,534 Fuel Truck crane 16t day 0.82 77 66 7,861 Truck 8t day 0.82 80 Generator 45KVA 1.6 24 39 4,676 128,158 1,068 Sub Total 2 Labor 61 7.334 Foreman man.day 1.6 38.20 16,474 9.6 14,30 137 Labor man.day Welder man,day 1.6 23.09 37 4,433 Truck crane 16t man.day 0.82 33 27 3,247 27 Truck 8t man.day 0.82 33 3,247 33 53 Generator 45KVA man day 1.6 6,336 342 Sub Total 41,072 3 Equipment 7,774 Truck crane 16t 0.82 9,480 7773.6 day Truck 8t 0.82 3,480 2,854 2.854 day 1.6 1,080 1,728 1,728 Generator 45KVA day Bar cutter day 1.6 1.6 Bar bender day 12,358 Sub Total 12,358 Total 12,358 1,410 181,588 Unit Price per m 123.58 14.10 1,815.88 15% 2.12 272.38 INDIRECT COST 18.54 TOTAL 142.12 16.22 2,088.27

	ZH1704						LC: US\$			Total estimate	for 100 m	US\$=¥120
	Concrete Placing	11.24	Quantity				sic Price	<u></u>		Unit C		Total
No	Work Item	Unit	Quantity	Ma	terial		abor	. Equip	ment	Amou		in
			-	FC	LC	FC	LC LC	FC FC	LC	FC	LC	YEN
1	Material	<u> </u>										
	Grating cover	Nos	250.00	0	72.00					• •	18,000	2,160,00
	Ready mixed concrete	m3	22.30	o	67.00		:				1,494	179,29
	Wasted concrete(5%)	m3	1.12	o	67.00	,				0	75	8,96
	Formwork	m2	435.00	0	5.50					0	2,393	287,10
	Elas tigh board	m2	2.30	. 0	5.50		İ				13	1,51
	Fuel Truck crane 16t	day	1	0	77		·			0	77	9,18
	" Concrete mixer 0.6m3	day	1	0	0						0	
	" Generator 45KVA	day	1	0	24						24	2,85
	" Truck 8t	day	1	0	80		j		1		80	9,58
	Sub Total						ŀ		}		2 <b>2</b> ,154	2,658,50
2	Labor								1			
	Foreman	man.day	1			0	38.20	ł	ļ ·	o c	38	4,58
	Labor	man.day	6	\ \ \ \ \ \	· •	0	14.30	l	1	0	86	10,29
	Truck crane 16t	man.day	1	i		0	33			0	33	3,96
	Generator 45KVA	man.day	1			0	33			0	33	3,96
	Truck 8t	man.day	1	-		0	33		•	0	33	3,96
	Sub Total										223	26,76
3	Equipment		.				ļ		Ì		İ	
	Truck crane 16t	day	1	1			·	9,480	1	9480	٥	9.48
	Concrete mixer 0.6m3	day	1				ļ	6.480		6,480	٥	6,48
	Generator 45KVA	day	1			,		1,080		1,080	٥	1,08
	Truck 8t	day	1	Ì			į	3,480	0	3,480	٥	3,48
	Vibrator	day	1	·				120	0	120	이	12
	Sub Total						l	<u> </u>	<u> </u>	20,640	0	20,64
								Total		20,640	22,377	2,705,90
								Unit Price p		206.40	223.77	27,059.0
	INDIRECT COST								15%		33.57	4,058.8
	TOTAL									237.36	257.34	31,117.8

2H1705

	Backfill sand & Compact				LC: US\$				Total estimate	e for 100 m	US\$=¥120		
No	Work Item	Unit	Quantity			В	sic Price				Unit	Cost	Total
			[	Mate	rial	L	abor'		Equip	ment	Am	ount	in
			[	FC	LC	FC	LC	F	C	LC	FC	LC	YEN
1	Material												
	Backfill sand	m3	28	0	4.00	•					0	112	13,440
	Wasted Backfill sand (25%)	m3	J · 7]	0	4.00			]			0	28	3,360
	Fuel Backhoe 0.8m3	day	0.6	. 0	95			ŀ			0	57	6,868
	" Tire roller 8-20t	day	0.6	0	55							33	3,969
	∫″ Tampa	day	0.6	0	2			}		]	0	1	119
	Sub Total				i			1			0	231	27,756
2	Labor				ļ		,						
	Foreman	man.day	0.6	]	.	0	38.20	)]		. ]	0	23	2,750
	Labor	man.day	2.4		ļ	0	14.30	)		İ	0	34	4,118
	Backhoe 0.8m3	man.day	0.6	1	j	0	33	<b>;</b>			. 0	20	2,376
	Tire roller 8-20t	man.day	0.6		J	0	33		-		0	20	2,376
	Sub Total									· .	0	97	11,621
3	Equipment												
	Backhoe 0.8m3	day	0.6		]		j	] .	11,280	o	6.768	. 0	6,768
	Tire roller 8-20t	day	0.6	·	ĺ				3,360	0	2,016	0	2,016
	Tampa	day	0.6						212.40	0	127	0	127
	Sub Total	<u> </u>									8,911	0	8,911
							· <del>-</del>	Total			8,911	328	48,288
	· · · · · · · · · · · · · · · · · · ·							Unit P	rice pe	erm _	89.11	3.28	482.88
	INDIRECT COST									15%	13.37	0.49	72,43
	TOTAL										102.48	3.77	555.32

2J

	Security Fence		·			LC: US\$	Total estimate for	1302 m	US\$=¥120
No	Work Item	Unit	Quantity		Basic Price		Unit Cost		Total
		1					Amount		in
		<u> </u>	<u> </u>		FC	LC	FC	LC	YEN
2J01	Production of post	М	1302		24	9.87	30,912.00	12,855.52	1,573,573.98
2J02	Placing of fence	М	1302		20	29.15	26,369.04	37,959.11	4,581,462.00
	Total		j				57,281.04	50,814.62	6,155,035.98
		L							
				Unit P	rice per m		44	39.03	4,727

2J01

	Production of post				·		LC: US\$			Total estimate	for 1302 m	US\$=¥120
No	Work Item	Unit	Quantity			Basic	Price			Unit	Cost	Total
				Ma	aterial	Ĺ	abor	Equip	ment	Am	ount	in
				FC	LC	FC	LC	_FC	LC	FC	LC	YEN
1	Material											
	Ready mixed concrete	m3	61.00	0	70.00					0	4,270	512,400
	Wasted concrete(1.5%)	m3	0.92	. 0	70,00	1.				. 0	64	7,686
	Formwork	m2	591	. 0	1,10		[	1	<b>[</b>	0	650	78,012
	Reinforcement par	ton	3.87	0	360			· 📗 ·		0	1,393	167,184
	Post	Nos	434	0	8					o	3,472	416,640
	Fuel Truck with crane 8t	day	4	. 0	∫ 61					0	246	29,462
	" Generator 45KVA	day	4	0	24	] ·	<b>j</b>			0	95	11,405
	Sub Total				ļ					0	10,190	1,222,789
2	Labor	ĺ	[ ]		ĺ				,			
	Foreman	man.day	4	' -		0	. 38.20			٥	153	18,336
!	Labor	man.day	40	j • •	}	0	14,30			. 0	572	68,640
	Truck with crane 8t	man.day	4		[	[. o	33	3		0	132	15,840
	Generator 45KVA	man.day	4			0	33	3		0	132	15,840
	Sub Total	1		*					j. ·	0	989	118,656
3	Equipment	[ ·	[ [		[	·		1				
	Truck with crane 8t	day	4				*	5,520	0	22,080	0	22,080
	Generator 45KVA	day	4					1,080	0	4,320	0	4,320
	Vibrator	day	4					120	[ · 0	480	0	480
	Bar bendder	day	2	*	1			120	0	240	0	240
	Bar cutter	day	2					120	0	240	0	<b>2</b> 40
	Sub Total		<u>[</u>		[			<u> </u>		26,880	. 0	26,880
								Total		26,880	11,179	1,368,325
								Unit Price	per m	20.65	8.59	1,050.94
	INDIRECT COST								15%	3.10	1.29	157.64
	TOTAL									24	9,87	1,209

2J02

	Placing of fence						LC: US\$	· · · · · · · · · · · · · · · · · · ·		Total estimate	for 1302 m	US\$=¥120
No	Work Item	Unit	Quantity	Basic Price						Unit Cost		Total
				Material		Labor		Equipment		- Amount		in .
İ				FC	LC	FC	LC	FC	LC	FC	LC	YEN
1	Material											
	Excavation	m3	184	82.8	1.58				Ì	15235.2	291	15,235
	Backfill	m3	134	84	7.38					11256	989	11,256
i .	Net,steel wire and gate	m ·	1302	0	24.5			•		0	31,899	3,827,880
1	Fuel Truck with crane 8t	day	4	0	61					0	246	29,462
	" Tampa	day	4	0	2					0	7	792
	Sub Total									0	32,151	3,858,134
2	Labor									·	Ī	
1	Foreman	man.day	4			. 0	38.20			0	153	18,336
	Labor	man.day	40				14.30			0	572	68,640
	Truck with crane 8t	man.day	4			C	33		}	0	132	15,840
	Tampa	man.day	1 1			. 0	14		1	0	57	6.864
	Sub Total						,		1	. 0	857	109,680
3	Equipment		1								1	
	Truck with crane 8t	day	4					5,520	0	22,080	0	22,080
1	Tampa	day	. 4	j				212	0	850	• 0	850
	Sub Total		] ]			· .				22,930	0	22,930
L	Total Total								22,930	33,008	3,990,744	
			Unit Price per m				17.61	25.35	3,065,09			
	INDIRECT COST								15%	2.64	3.80	459.76
	TOTAL									20	29.15	<u>3,525</u>