

# **QUANTITY CALCULATION**

## **BUILDING WORK**

**[ 3B;CONTAINER FREIGHT STATION ]**

**AUGUST 2002**

## LA UNION PORT DEVELOPMENT PROJECT

## QUANTITY CALCULATION SHEET

3B01: EARTHWORKS  
CFS BLDG.

ITEM NO.	DESCRIPTION	UNIT	LOCATION	QTY.	QUANTITY CALCULATION	TOTAL QTY.
3B0101	Excavation for PILE CAP	m3	F1	28	$1.35*(1.2*2.1+0.9*1.2+0.9*2.1+0.9*0.9)*28$	268.76
			F2	3	$0.85*(1.2*2.2+0.9*1.2+0.9*2.2+0.9*0.9)*3$	18.67
			Platform Foundation		$((0.4+1.1)*1.35*0.5*2+1.35*1.6)*(75+3.2*2)*2$	681.32
					SUB TOTAL	968.74
3B0101	Backfilling for Slab	m3	1st Stage to L+0		$968.74-(\text{Pilecap}; 225.58 + \text{Platform Found.}; 0.95*0.2*201)$	704.97
			2nd Stage to Slab		Profile of BLDG ; $3142.5*0.85$ (FB; $203.96 + \text{Platform Wall}; 0.85*0.2*201$ )	2433.00
					SUB TOTAL	3137.97
TOTAL						

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
CALC FILE No.:		
CALC INDEX No.:	PAGE 058	
	INITIAL	DATE
PREPARED BY	<i>P.F.</i>	<i>Jul 02</i>
CHECKED BY	<i>Cella</i>	<i>Aug 02</i>

PAY ITEM NO	DISCRIPTION	TOTAL Qty	UNIT		CALCULATION				
			SUB TOTAL						
3B02	PIPE WORKS								
* P1	400*400	56	Nos						
* P2	450*450	6	Nos						
	sum	62	Nos						
	CONCRETE	71.24	m3						
				62.72	1.12	*	56		
				8.52	1.42	*	6		
	STRAND ROPE (6-φ1/2")	2604.00	m						
				2604.00	42.0	*	62		
	D16	1887.90	Kg						
				1887.90	30.45	*	62		
	D10 (SPIRAL)	5678.86	Kg						
				5068.00	90.5	*	56		
				610.86	101.81	*	6		

<b>CALCULATION</b>		
Detailed Design on Port Reactivation Project in La Union Province		
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PREPARED BY	Y-F	Jul. 02
CHECKED BY	LOH	Aug 02

PILE



[3B03 CONCRETE AND FORMWORK ]

SUMMARY OF FL BASE (1)

CONCRETE (m3)														
Floor	Fundation	Foundation Beam	Foundation Slab	Column	Beam	Sub-Beam	Slab	Wall	Stair	Misc.		Total	Floor Area	m3/Floor Area
-1FL	225.58	206.31		21.29			610.73					1083.91		
+1FL				36.06								36.06		
Total	225.58	206.31		57.35			610.73					1099.97		
m3/F Area														

FORMING (m2)														
Floor	Fundation	Foundation Beam	Foundation Slab	Column	Beam	Sub-Beam	Slab	Wall	Stair	Misc.		Total	Floor Area	m2/Floor Area
-1FL	1094.04	1243.42		135.01								2472.48		
+1FL				228.19								228.19		
Total	1094.04	1243.42		363.2								2700.65		
m2/F Area														
m2/m3														

SUMMARY OF FL BASE (2)

STEEL BAR (kg)														
Floor	Fundation	Foundation Beam	Foundation Slab	Column	Beam	Sub-Beam	Slab	Wall	Stair	Misc.		Total	Floor Area	kg/Floor Area
-1FL	19,275.1	27,708.2		14,056.3			94,140.6					155,180.1		
+1FL							1,372.9					1,372.9		
Total	19,275.1	27,708.2		14,056.3			95,513.5					156,553.0		
kg/F Area														
kg/m2														

STEEL BAR (kg)														
Part	D10	D13	D16	D19	D22	D25	D29	D32						
Foundation		17,808.1	1,467.0											
Foundation Beam	3,087.3	8,386.4				16,224.5								
Mat Slab														
Column	946.5				13,109.8									
Beam														
Sub-Beam														
Slab	1,372.9	53,435.5	40,705.1											
Wall														
Stair														
Misc.														
Total	5,406.8	79,639.9	42,172.0		13,109.8	16,224.5								
Ratio(%)														

<b>CALCULATION</b>		
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CHECKED BY	Colt	Aug.02

## FOUNDATION QUANTITY CALCULATION

	D10	D13	D16	D19	D22	D25	D29	D32
Hook	0.10	0.14	0.17	0.23	0.27	0.30	0.35	0.38
15d	0.15	0.20	0.24	0.29	0.33	0.38	0.44	0.48
25d	0.25	0.33	0.40	0.48	0.55	0.63	0.73	0.80
35d	0.35	0.46	0.56	0.67	0.77	0.88	1.02	1.12
40d	0.40	0.52	0.64	0.76	0.88	1.00	1.16	1.28

Symbol	CONCRETE				FORMING				STEEL BAR																	
	Width (m)	Length (m)	Thick (m)	Q'ty	Total (m <sup>3</sup> )	Width (m)	Length (m)	Q'ty	Total (m <sup>2</sup> )	Symbol	Dia (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D29	D32				
F-1	2.10	1.20	0.70	28	49.39	6.60	0.70	28	129.36	B.L	16	2.10	7	28										411.6		
										B.L	16	1.20	12	28											403.2	
										T.L	13	3.90	5	28											546.0	
										T.L	13	3.00	12	28											1008.0	
F-2	2.2	1.2	0.7	3	5.54	6.80	0.70	3	14.28	B.L	16	2.20	7	3											46.2	
										B.L	16	1.20	12	3											43.2	
										T.L	13	4.00	5	3											60.0	
										T.L	13	3.00	12	3											108.0	
PLATFORM Foundation	1.6	216	0.25	1	86.40	432.00	0.25	1	108.00	T.B	13	108.00	9	2											1944.0	
										T.B	13	1.80	1080	1												1944.0
										B.B	13	108.00	9	2												1944.0
											13	1.80	1080	1												
PLATFORM Wall	1.95	216	0.2	1	84.24	432.00	1.95	1	842.40	VW.B	13	2.47	1080	2											5335.2	
										HW.B	13	108.00	20	2												4320.0
Sub-Total					√ 225.58				1094.04						(m)											17209.2
															(kg)											17123.2
																										904.2
																										1410.6

## CALCULATION

Detailed Design  
on Port Reactivation Project  
in La Union Province

CALC FILE No.:

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PREPARED BY Y.F Jul.02

CHECKED BY C.H. Arjor

**CALCULATION**  
Detailed Design  
on Port Reactivation Project  
in La Union Province

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CALC INDEX No.: \_\_\_\_\_ PAGE 0653

PREPARED BY Y-F DATE July 2002

CHECKED BY Aug 02

FOUNDATION BEAM QUANTITY CALCULATION

D10	D13	D16	D19	D22	D25	D29	D32
0.10	0.14	0.17	0.23	0.27	0.30	0.35	0.38
0.15	0.20	0.24	0.29	0.33	0.38	0.44	0.48
0.25	0.33	0.40	0.48	0.55	0.63	0.73	0.80
0.35	0.46	0.56	0.67	0.77	0.88	1.02	1.12
0.40	0.52	0.64	0.76	0.88	1.00	1.16	1.28

Symbol	CONCRETE				FORMING				CHECKED BY		STEEL BAR											
	Width (m)	Length (m)	Thick (m)	Total (m <sup>3</sup> )	Width (m)	Length (m)	Q'ty	Total (m <sup>2</sup> )	Symbol	Di. (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D29	D32	
FB-1 1,2,11間	0.35	1.20	6.97	6	17.56	2.40	6.97	6	100.37	T.B	25	35.52	3									319.7
	0.35	1.20	6.92	6	17.44	2.40	6.92	6	99.65	B.B	25	35.52	3									319.7
										STR	13	3.10	36		669.6							
										STR	13	3.10	36		669.6							
										W.B	10	31.42	8	754.1								
										Tie	10	0.35	32	67.2								
										Tie	10	0.35	32	67.2								
FB-1 3~10間	0.35	1.20	29.52	8	99.19	2.40	29.52	8	566.78	T.B	25	35.52	3									852.5
										B.B	25	35.52	3									852.5
										STR	13	3.10	149		3695.2							
										W.B	10	31.42	8	2010.9								
										Tie	10	0.35	125	350.0								
FB-2 A間	0.30	1.20	6.75	1	2.43	2.40	6.75	1	16.20	T.B	25	18.25	3									54.8
	0.30	1.20	6.92	9	22.42	2.40	6.92	9	149.47	T.B	25	69.42	3									208.3
										B.B	25	18.25	3									54.8
										B.B	25	69.42	3									208.3
										STR	13	3.10	35		108.5							
										STR	13	3.10	36		1004.4							
										W.B	10	15.35	8	122.8								
										W.B	10	63.72	8	509.8								
										Tie	10	0.30	32	96.0								
FB-2 E間	0.30	1.20	6.75	1	2.43	2.40	6.75	1	16.20	T.B	25	18.25	3									54.8
	0.30	1.20	6.92	9	22.42	2.40	6.92	9	149.47	T.B	25	60.92	3									182.8
										T.B	25	9.92	3									29.8
										B.B	25	18.25	3									54.8
										B.B	25	60.92	3									182.8
										B.B	25	9.92	3									29.8
										STR	13	3.10	35		108.5							
										STR	13	3.10	36		1004.4							
										W.B	10	15.35	8	122.8								
										W.B	10	55.42	8	443.4								
										W.B	10	7.62	8	61.0								
										Tie	10	0.30	32	96.0								
FB-2 B,C,D間 1-2間	0.30	1.20	6.33	3	6.84	2.40	6.33	3	45.58	T.B	25	9.33	3									84.0
										B.B	25	9.33	3									84.0
										STR	13	3.10	33		306.9							
										W.B	10	7.03	8	166.7								
										Tie	10	0.30	32	28.8								
FB-2 B,C,D間 10-11間	0.30	1.20	6.83	3	7.38	2.40	6.83	3	49.18	T.B	25	9.83	3									88.5
										B.B	25	9.83	3									88.5
										STR	13	3.10	36		334.8							
										W.B	10	7.53	8	180.7								
										Tie	10	0.30	32	28.8								
小計					198.10				1192.90					(m) 5108.1	7901.9				3749.8			
														(kg) 2660.5	7862.4				14924.0			

## FOUNDATION BEAM QUANTITY CALCULATION

	D10	D13	D16	D19	D22	D25	D29	D32
Hook	0.10	0.14	0.17	0.23	0.27	0.30	0.35	0.38
15φ	0.15	0.20	0.24	0.29	0.33	0.38	0.44	0.48
25φ	0.25	0.33	0.40	0.48	0.55	0.63	0.73	0.80
35φ	0.35	0.46	0.56	0.67	0.77	0.88	1.02	1.12
40φ	0.40	0.52	0.64	0.76	0.88	1.00	1.16	1.28

Symbol	CONCRETE					FORMING				STEEL BAR													
	Width (m)	Length (m)	Thick (m)	Q'ty	Total (m <sup>3</sup> )	Width (mm)	Length (m)	Q'ty	Total (m <sup>2</sup> )	Symbol	Dia (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D29	D32	
FB-2 C通2-3間	0.35	1.20	6.97	1	2.93	2.40	6.97	1	16.73	T.B	25	9.33	3	1							28.0		
										B.B	25	9.33	3	1							28.0		
										STR	13	3.10	36	1		111.6							
										W.B	10	7.03	8	1	56.2								
										Tie	10	0.30	32	1	9.6								
FB-2 1~2通 D, E間	0.35	1.20	6.97	1	2.93	2.40	6.97	1	16.73	T.B	25	9.83	3	1							29.5		
										B.B	25	9.83	3	1							29.5		
										STR	13	3.10	36	1									
										W.B	10	7.53	8	1	60.2								
										Tie	10	0.30	32	1	9.6								
FB-3 2~3間	0.3	0.9	7.15	1	1.93	1.8	7.15	1	12.87	T.B	25	9.15	3	1							27.5		
										B.B	25	9.15	3	1							27.5		
										STR	13	2.4	37	1		88.8							
										W.B	10	7.95	4	1	31.8								
										Tie	10	0.3	9	1	2.7								
Wall 2~3間	0.2	0.7	3	1	0.42	1.4	3	1	4.2	V.B	13	0.9	13	1		11.7							
										H.B	10	3.8	6	1	22.8								
Sub-Total					8.20				50.53						(m) 193.0	212.1					170.0		
															(kg) 108.1	211.0					676.4		
Total					✓ 206.31				1243.42						(m) 5301.1	8114.0					3919.7		
															(kg) 2968.6	8073.4					15600.5		

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
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PREPARED BY	Y.F	Jul.02
CHECKED BY	LOH	Azejo



SLAB QUANTITY CALCULATION

	D10	D13	D16	D19	D22	D25	D29	D32
Hook	0.10	0.14	0.17	0.23	0.27	0.30	0.35	0.38
15d	0.15	0.20	0.24	0.29	0.33	0.38	0.44	0.48
25d	0.25	0.33	0.40	0.48	0.55	0.63	0.73	0.80
35d	0.35	0.46	0.56	0.67	0.77	0.88	1.02	1.12
40d	0.40	0.52	0.64	0.76	0.88	1.00	1.16	1.28

Symbol	CONCRETE					FORMING				STEEL BAR													
	Width (m)	Length (m)	Thick (m)	Q'ty	Total (m3)	Width (m)	Length (m)	Q'ty	Total (m2)	Symbol	Dia (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D29	D32	
S2	7.09	7.80	0.20	1	11.06					S.Top	16	9.01	203	1					1829.0				
1-2,A-E	7.09	7.20	0.20	2	20.42																		
	7.09	7.52	0.20	1	10.66					S.Bom	13	8.01	200	1		1602.0							
										S.	16	0.64	406	1					259.8				
										S.	13	0.52	406	1		211.1							
										L.Top	13	9.36	32	1		299.5							
										L.Top	13	8.76	30	2		525.6							
										L.Top	13	9.08	31	1		281.5							
										L.Bom	13	8.72	32	1		279.0							
										L.Bom	13	8.12	30	2		487.2							
										L.Bom	13	8.44	31	1		261.6							
										L.	13	0.52	492	1		255.8							
S2	7.15	30.52	0.20	1	43.64					S.Top	16	9.07	205	1					1859.4				
2-3,A-E										S.Bom	13	8.71	205	1		1785.6							
										S.	16	0.64	410	1					262.4				
										S.	13	0.52	410	1		213.2							
										L.Top	13	34.16	30	1		1024.8							
										L.Bom	13	33.52	30	1		1005.6							
										L.	13	0.52	120	1		62.4							
S2	7.15	29.77	0.20	7	298.00					S.Top	16	9.07	200	7					12698.0				
3-10,A-E										S.Bom	13	8.71	200	7		12194.0							
										L.Top	13	33.41	30	7		7016.1							
										L.Bom	13	32.77	30	7		6881.7							
										S.Top	16	9.01	200	1					1802.0				
S2	7.09	7.24	0.20	1	10.27																		
10-11,A-E	7.09	7.20	0.20	2	20.42																		
	7.09	7.52	0.20	1	10.66					S.Bom	13	8.01	200	1		1602.0							
										S.	16	0.64	400	1					256.0				
										S.	13	0.52	400	1		208.0							
										L.Top	13	8.80	32	1		281.6							
										L.Top	13	8.76	30	2		525.6							
										L.Top	13	9.08	31	1		281.5							
										L.Bom	13	8.16	32	1		261.1							
										L.Bom	13	8.12	30	2		487.2							
										L.Bom	13	8.44	31	1		261.6							
										L.	13	0.52	492	1		255.8							

<b>CALCULATION</b>	
Detailed Design	
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PREPARED BY: <i>J-F</i>	<i>Jul 02</i>
CHECKED BY: <i>Ally</i>	<i>Angon</i>

Detailed design on Port reactivation Project in La Unin Province

Quantity calculation Sheet  
Container Freight Station

## SLAB QUANTITY CALCULATION

	D10	D13	D16	D19	D22	D25	D29	D32
Hook	0.10	0.14	0.17	0.23	0.27	0.30	0.35	0.38
15d	0.15	0.20	0.24	0.29	0.33	0.38	0.44	0.48
25d	0.25	0.33	0.40	0.48	0.55	0.63	0.73	0.80
35d	0.35	0.46	0.56	0.67	0.77	0.88	1.02	1.12
40d	0.40	0.52	0.64	0.76	0.88	1.00	1.16	1.28

Symbol	CONCRETE					FORMING				STEEL BAR													
	Width (m)	Length (m)	Thick (m)	Q'ty	Total (m <sup>3</sup> )	Width (m)	Length (m)	Q'ty	Total (m <sup>2</sup> )	Symbol	Dia (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D29	D32	
S1	9.15	31.12	0.05	1	14.24					S	10	9.25	127	1	1174.8								
1-2,A-E										L	10	31.12	38	1	1182.6								
S2	4.5	75.2	0.2	2	135.36					L.Top	13	75.20	18	2		2707.2							
PLATFORM										L.Bom	13	75.20	18	2		2707.2							
										S.Top	16	4.90	502	2			4919.6						
										S.Bom	13	4.90	502	2			4919.6						
S2	7.5	12	0.2	2	36.00					L.Top	13	12.50	31	2		775.0							
SLOPE										L.Bom	13	12.50	31	2		775.0							
										S.Top	16	7.52	80	2			1203.2						
										S.Bom	13	7.52	80	2			1203.2						
小計					610.73										(m) 2357.3	51638.5	25089.4						
															(kg) 1320.1	51380.3	39139.5						

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
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LA UNION PORT DEVELOPMENT PROJECT  
 [ 3B04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
 CONTAINER FRIGHT STATION

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
COLUMN	(Axis) A,E通 C1	W18x86 →外H-468x282x12x20	32333.9	kg		7.0*11*2	128.0	5	20697.6	
	B,D通 C1	W18x86 →外H-468x282x12x20				$((7.0+11.8)/2-0.58)*2*3$	128.0	5	7112.4	
	C通 C1	W18x86 →外H-468x282x12x20				$(11.8-0.58)*3$	128.0	5	4523.9	
COLUMN	B',C,C'通 C3	W8x31 →H-203x203x7x11	1945.1	kg	SKYLIGHT ROOF	1.2*11*3	46.8	5	1945.1	

CALCULATION			
Detailed Design			
on Port Reactivation Project			
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ITEM	LOCATION	DISCRPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
BEAM	1~11通 B1	W12x58 →外H-310x254x9x16	31398.1	kg	ROOF	(15.75*2)*11	86.3	5	31398.1	
BEAM	1~11通 B2	W10x30 →H-266x148x7.5x13	5357.4	kg	ROOF	5.2*2*11	44.6	5	5357.4	
	A,B,C,D,E,通 B2				ROOF	7.38*10*5	44.6	5	17280.3	
	-A,E-通 B2				ROOF	7.4*10*2	44.6	5	6930.8	
	B',C,C'通 B2				SKYLIGHT ROOF	7.19*8*3+4.69*2*3	44.6	5	9398.8	
BEAM	1~11通,A~E間 B3	W8x31 →H-203x203x7x11	23838.4	kg	ROOF	7.77*(2*2+4*8)	46.8	5	13739.6	
	1'-2&10-10'通,B~D間 B3				ROOF	4.1*2*2+3.7*2*2	46.8	5	1532.5	
	1'~10'通,B'~C'間 B3				SKYLIGHT ROOF	4.2*2*11+4.1*2*10	46.8	5	8566.4	
BEAM	B',C'通,1-2&10-11間 B4	W10x54 →外H-256x256x9x16	2490.8	kg	ROOF	7.38*2*2	80.36	5	2490.8	
BEAM	1,2通,A~E間 B5	W14x61 →外H-353x254x9x16	8426.15	kg	2F	7.41*2*3+7.32*2*3	90.8	5	8426.1	
BEAM	A~E通,1-2間 B6	W18x55 →外H-460x191x10x16	2936.7	kg	2F	7.23*2+8.57*2	81.85	5	2936.7	

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LA UNION PORT DEVELOPMENT PROJECT  
 [ 3B04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
 CONTAINER FRIGHT STATION

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
SUB BEAM	A,E通,2~10間 B7	W8x28 →H-205x166x7x12	5128.1	kg		7.32*8*2	41.7	5	5128.1	
SUB BEAM	1,2,11通,A~E間 B	W10x54 →外H-256x255x9x16	7457.3	kg		7.41*2*3+7.32*2*3	80.36	5	7457.3	
BOTTOM BEAM	3~10通,A~E間 B	W10x54 →外H-256x255x9x16	20250.7	kg		30.0*8	80.36	5	20250.7	
BOTTOM BEAM	-A,E-通,1~11間 B	W6x15 →H-152x152x6x7	2706.9	kg		5.25*11*2	22.3	5	2706.9	
H; TOTAL			144,270	kg						

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LA UNION PORT DEVELOPMENT PROJECT  
[ 3B04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
CONTAINER FRIGHT STATION

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
STUD	1~11通,-A~E-間	2-C10x30 →2-C-250x75	5509.4	kg		(3.4+1.2+0.7)*2*11	45	5	5509.4	
	3~10通	C10x30 →C-250x75	2578.0			(4.5+2.32)*8	45	5	2578.0	
	1, 2, 11通	C10x30 →C-250x75	1927.8			3.4*4*3	45	5	1927.8	
	11通	C4x5.4 →C-100x40	209.8			7.32*3	9.1	5	209.8	
C: TOTAL			10,225	kg						

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LA UNION PORT DEVELOPMENT PROJECT  
[ 3B04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
CONTAINER FRIGHT STATION

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
BATTLESS	I~II通,A~E間	L4"x4"x3/8" →L-100x100x10	4823.3	kg		(5.8+4.7+4.0)*2*11	14.4	5	4823.3	
BATTLESS	I~II通,-A&E-	L4"x4x1/2" →L-100x75x13	1433.2	kg		3.3*2*11	18.8	5	1433.2	
BRACE WALL	A通	→L-100x100x10	1301.7	kg		7.5*2*2	14.9	5	469.4	
	E通					9.6*2	14.9	5	300.4	
	II通					8.5*2*2	14.9	5	531.9	
BRACE	I~II通,A~E間 BR-1	L4"x4"x1/2" →L-100x100x13	7263.9	kg	ROOF	3.7*2*32	19.1	5	4749.0	
	I~II通,-A&E間 BR-1				ROOF	2.85*2*11*2				19.1
BRACE	I~10'通,B'~C'間 BR-2	L2"x2"x3/8" →L-50x50x8	538.9	kg	MONITOR ROOF	3.7*2*6*2	5.78	5	538.9	
	L; TOTAL		15,361							
PURLIN		C4"x1/16"→100*50*30*2.3 @1000	19287.5			80.2*25*2+70*5*2	3.9		19287.5	
RAFTER		C4"x1/16"→100*50*30*2.3 @1000	1788.4			2.5*4*16+(30+31.12*2)*3	3.9		1788.4	
	C(LGS); TOTAL		21,076	kg						
	SUB TOTAL		190,931	kg						
	GUSSET PLATE H.T. Bolt ,etc	*7%	13,365	kg						
	TOTAL		204,297	kg						

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ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	m <sup>2</sup> /m	Loss %	+Loss 5% TOTAL	MEMO
COLUMN	A,E通 C1	W18x86	387.42	m <sup>2</sup>		(7.0-3.1)*9+(7.0-2.0)*13	2.44		244.24	
	B,D通 C1					((7.0+11.8)/2-0.58-3.1)*2*3	2.44		83.74	
	C通 C1					(11.8-0.58-3.1)*3	2.44		59.44	
COLUMN	B',C,C'通 C3	W8x31	37.22	m <sup>2</sup>	SKYLIGHT ROOF	1.2*11*3	0.94		37.22	
BEAM	1~11通 B1	W12x58	568.26	m <sup>2</sup>	ROOF	(15.75*2)*11	1.64		568.26	
BEAM	1~11通 B2	W10x30	832.10	m <sup>2</sup>	ROOF	5.2*2*11	1.00		114.40	
	A,B,C,D,E,通				ROOF	7.38*10*5	1.00		369.00	
	-A,E-通				ROOF	7.4*10*2	1.00		148.00	
	B',C,C'通				SKYLIGHT ROOF	7.19*8*3+4.69*2*3	1.00		200.70	
BEAM	1~11通,A~E間 B3	W8x31	456.20	m <sup>2</sup>	ROOF	7.77*(2*2+4*8)	0.94		262.94	
	1'-2&10-10'通,B~D間 B3				ROOF	4.1*2*2+3.7*2*2	0.94		29.33	
	1'~10'通,B'~C'間 B3				SKYLIGHT ROOF	4.2*2*11+4.1*2*10	0.94		163.94	
BEAM	B',C'通,1-2&10-11間 B4	W10x54	43.69	m <sup>2</sup>	ROOF	7.38*2*2	1.48		43.69	

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LA UNION PORT DEVELOPMENT PROJECT  
[ 3B04 STRUCTURE STEEL WORK ]

PAINTING ON STEEL

QUANTITY CALCULATION SHEET  
CONTAINER FREIGHT STATION

ITEM	LOCATION	DISCRPTION	Qty	UNIT	FL	CALCULATION	m <sup>3</sup> /m	Loss %	+Loss 5% TOTAL	MEMO
BEAM	1,2通,A~E間 B5	W14x61	144.94	m <sup>2</sup>	2F	7.41*2*3+7.32*2*3	1.64		144.94	
BEAM	A~E通,1-2間 B6	W18x55	56.04	m <sup>2</sup>	2F	7.23*2+6.57*3	1.64		56.04	
SUB BEAM	A,E通,2~10間 B7	W8x28	103.07	m <sup>2</sup>		7.32*8*2	0.88		103.07	
SUB BEAM	1,2,11通,A~E間 B	W10x54	130.80	m <sup>2</sup>		7.41*2*3+7.32*2*3	1.48		130.80	
BOTTOM BEAM	3~10通,A~E間 B	W10x54	355.20	m <sup>2</sup>		30.0*8	1.48		355.20	
BOTTOM BEAM	-A,E-通,1~11間 B	W6x15	62.37	m <sup>2</sup>		5.25*11*2	0.54		62.37	
STUD	1~11通,-A~E-間	2-C10x30	186.56	m <sup>2</sup>		(3.4+1.2+0.7)*2*11	1.60		186.56	
BATTLES	1~11通,A~E間	L4"x4"x3/8"	127.60	m <sup>2</sup>		(5.8+4.7+4.0)*2*11	0.40		127.60	
BATTLES	1~11通,-A&E-	L4"x4x1/2"	20.33	m <sup>2</sup>		3.3*11	0.28		20.33	

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ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	m <sup>2</sup> /m	Loss %	+Loss 5% TOTAL	MEMO
BRACE WALL	A通	→L-100x100x10	33.28	m <sup>2</sup>		7.5*2*2	0.40		12.00	
	E通					9.6*2	0.40		7.68	
	11通					8.5*2*2	0.40		13.60	
BRACE	1~11通,A~E間 BR-1	L4"x4"x1/2"	144.88	m <sup>2</sup>	ROOF	3.7*2*32	0.40		94.72	
	1~11通,-A&E-間 BR-1				ROOF	2.85*2*11*2	0.40		50.16	
BRACE	1'~10'通,B'~C'間 BR-2	L2"x2"x3/8"	17.76	m <sup>2</sup>	SKYLIGHT ROOF	3.7*2*6*2	0.20		17.76	
TOTAL PAINTING AREA OF MAIN FRAME			3177.32	m <sup>2</sup>						
TOTAL PAINTING AREA OF SUB FRAME (PURLIN, RAFTER, GUSSET PLATE, etc)			530.41	m <sup>2</sup>						

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CHECKED BY	CAF August

QTY. CALC.(CFS. FINISHING)

3B05 : MASONRY WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B0501	Concrete Block 200mm.thk (Including Conc.Lintel)	m <sup>2</sup>		1F	Axis.A&E 15*2*3.5+2.5*2.1*16-opening10.62	178.38
					Axis.1&11 30*3.5*2	210.00
					SUB TOTAL	388.38
					TOTAL+ 5%	407.80
3B0502	Concrete Block 150mm.thk (Including Conc.Lintel)	m <sup>2</sup>		1F	Axis.2 30*3.3-Openkng28.93	70.07
					Axis.B,D&E 7.5*3*3.3	74.25
					Axis.D'E (7.5+4.24)*3.3-Opening2.53	36.21
					SUB TOTAL	180.53
					TOTAL+ 5%	189.56
3B0503	Concrete Block 100mm.thk (Including Conc.Lintel)	m <sup>2</sup>	Toilet	1F	(1.9+3)*2.4+(2.9+1.7+1.3+1.5)*2.1	27.3
					TOTAL+ 5%	28.67

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CHECKED BY	<i>Calp</i>	<i>Augor</i>

QTY. CALC.(OFS. FINISHING)

3B07 : TILE WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B0701	Floor Ceramic Tile 33*33*8mm	m	Interior	1F	7.5*7.5+3.26*7.5+2.1*4.24+7.5*30	314.60
					TOTAL+ 5%	330.33
3B0702	Floor Ceramic Tile 20*20*8mm	m	Toilet		5.4*4.24	22.90
					TOTAL+ 5%	24.04
3B0703	Step Nosing Tile (Interior)	m	Staircase		1.6*20Steps	32.00
3B0704	Step Nosing Tile (Exterior)	m	External Stair Steps		1.2*7Steps*2	16.80
					SUB TOTAL	48.80
					TOTAL+ 5%	51.24
3B0705	Internal Wall Ceramic Tile 20*30*8mm	m	Toilet,Kitchen		(5.4+4.5)*2*2.4+(1.9+3.4)*2*2.4+(1.8+1+1.2+0.4+1.4+1.8*2)*2*2.1- Opening14.28+Kitchen3.5*0.6	100.26
					TOTAL+ 5%	105.27
3B0706	Ceramic Tile Skirting (Interior)	m			3.26+7.5*2+(2.1+4.24)*2-0.9*2	29.14
					TOTAL+ 5%	30.60
3B0707	Granite Tile Shelf Top	m				1.70
					TOTAL+ 5%	1.79

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QTY. CALC.(CFS. FINISHING)

3B08 : PLASTERING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.	
3B0801	Cement Motar Plaster To Wall	m <sup>2</sup>	Interior	1F	0.7*2.1*14+1.2*2*3.5+30*3.5+0.7*3.5*2+7.5*4*2.8+(2.1+4.24)*2*2.8+(3.26+7.5*2)*		
			(Base for AEP)		2.8-Opening	26.84	282.67
			External Wall		15*2*3.5+2.5*2.1*16+30*3.5*2-Opening	10.62	388.38
			(Base for AEP)				
					SUB TOTAL	671.05	
						TOTAL+ 5%	704.60
3B0803	Control Joint ;w20 ,Calking	m	External Wall	Axis :1&11	84	84	
				Axis :A,E	42	42	
					SUB TOTAL	126.00	
						TOTAL+ 5%	132.30
3B0802	Cement Mortar Skirting Without Paint , H:100mm	m			(67.5+30)*2+7.5*8+(4+2.5)*2+30-Opening	100.46	
					TOTAL+ 5%	207.42	
3B0802	Hardner Finish on Concrete Floor	m <sup>2</sup>	Corridor ,Stair		30*1.6+1.6*1.6+1.6*(0.28+0.18)*26	69.70	
					TOTAL+ 5%	73.18	

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QTY. CALC.(CFS. FINISHING)

3B10 : PAINTING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.	
3B1001	AEP (On Mortar Plaster)	m <sup>2</sup>	Internal Wall		Same as Cement Mortar Plaster to Wall	282.67	
	AEP (On Gypsum Board)	m <sup>2</sup>	Mezzanine Floor		(30*3+7.5*3*2+7.5*2)*2.7	405.00	
	AEP (On Conc.Slab)	m <sup>2</sup>	Corridor Ceiling		1.6*30	48.00	
						SUB TOTAL	735.67
					TOTAL+ 5%	772.45	
3B1002	AEP (On Mortar Plaster ; Exterior)	m <sup>2</sup>	External Wall		Same as Cement Mortar Plaster For External Wall	388.38	
						TOTAL+ 5%	407.80
3B1003	OP	m <sup>2</sup>	On Wooden	Wooden Door)	(D2) ;0.9*2.1*2*7+(D9) ;0.8*0.8*2	27.74	
		m <sup>2</sup>	On Steel	Steel Door ,Shutter)	(D1) ;0.9*2.1*2*1 + (D3) ;0.9*2.1*2*2 + (D6) ;5.0*5.0*2*16	811.34	
		m <sup>2</sup>	Steel Metal Surface)	Steel Guard Pipe Column Protection . dia=168mm L=2.6m .18Sets			24.68
		m <sup>2</sup>		Steel Handrail Corridor&Stair L;30*h;1.2m+L;9.5*h;1.0m			35.11
		m <sup>2</sup>		Steel Handrail Exterior Steps L;12*h;1.0m			10.66
					SUB TOTAL	909.53	
					TOTAL+ 5%	955.01	
TOTAL							

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QTY. CALC.(CFS. FINISHING)

3B11: CARPENTRY AND JOINERY WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B1101	Wooden Door Frame	m	D2		$(0.9+2.1*2)*7$	35.7
TOTAL+ 5%						37.49
TOTAL						

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QTY. CALC.(OFS. FINISHING)

3B12 : INTERIOR FINISHING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B1201	Cement Fiberboard W/Suspended Ceiling	m <sup>2</sup>	Interior		7.5*15+3*3.8+7.5*30+3*3.8	360.3
TOTAL+ 5%						378.32
TOTAL						

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QTY. CALC.(CFS. FINISHING)

3B13 : MISCELLANEOUS METAL WORK (1)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B1303	Steel Handrail ; h.1.200	m	Mezzanine Corridor			30.00
	Baluster Steel Pipe dia;25mm @120					
	Handrail Steel Pipe dia;34mm		Stair			9.50
					SUB TOTAL	39.50
					TOTAL+ 5%	41.48
3B1304	Steel Handrail ; h.1.000	m	Platform Stair	2 NOS		12.00
					TOTAL+ 5%	12.60
3B1301	Metal Flashing Plate (Prices shall be included in Formed Steel Sheet Work)	m	External Wall (Top of Conc.Block ,Around Opening)		$(30+75)*2+(5-2.1)*2*16+(3.31+1.2)*2*4$	338.88
					TOTAL+ 5%	355.82
3B1301	Formed Steel Roof Sheet (Including Glass Fiber Board Sky Light)	m <sup>2</sup>	Roof		$80.2*21.7*2+Overlapping68*0.8*2$	3589.48
					TOTAL+ 5%	3768.95
3B1302	Formed Steel Wall Sheet	m <sup>2</sup>	External Wall		$(30*1.5+20.72*6.8)*2+15.3*1.5*2+2.5*2.9*16-Opening15.89+1.3*68*2+1.3*4*4-Opening101.81$	613.59
					TOTAL+ 5%	644.27
3B1305	Eaves Gutter (Galvanized Steel Sheet 0.6mmTHK Size .h;400mm*w;500mm	m			2nos	160.40
					TOTAL+ 5%	168.42
3B1308	Steel Guard Pipe Of Downspout Bottom ; h,2m	m			10nos	20.00
					TOTAL+ 5%	21.00
3B1307	Steel Guard Pipe Column Protection , dia=168mm	m			L:2.6mm*18sets	46.80
					TOTAL+ 5%	49.14
TOTAL						-

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QTY. CALC.(CFS. FINISHING)

3B14 : Miscellaneous Work

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B1401	Downspout Including Eibow Underground	m	Above FL+2.0m		(5.6+5-2)*10	86
			Below FL+00			
					TOTAL+ 5%	0.00
TOTAL						

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QTY. CALC.(OFS. FINISHING)

3B15 : Outdoor Work

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3B1502	Conc.Drain Pipe 200mmdia	m	Below Slope		7.5*2	15.00
					TOTAL+ 5%	15.75
3B1501	Conc.Drain Ditch w;400 w/Conc Cover	m			7.5*8*2	120
					TOTAL+ 5%	126.00
					Conc Volume $(0.6*0.1+0.62*0.1*2+0.6*0.1)*7.5*8*2=$	29.28 m3
3B1503	Conc.Catch Basin ;800*800	nos			2 nos	
					Conc Volume $(1*1*0.1+0.79*0.1*4+1*1*0.1)*2=$	1.032 m3
TOTAL						

<b>CALCULATION</b>		
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# QUANTITY CALCULATION

## BUILDING WORK

[ 3C; MAINTENANCE AND REPAIR SHOP ]

AUGUST 2002

**3C01: EARTHWORKS  
MAINTENANCE AND REPAIR SHOP**

ITEM NO.	DESCRIPTION	UNIT	LOCATION	QTY.	QUANTITY CALCULATION	TOTAL QTY.
3C0101	Excavation for PILE CAP	m3	F1	27	$1.55*(1*1+1.2*1+1.2*1+1.2*1.2*2)*27$	262.82
			F2	44	$1.55*(1.2*1.2+1.2*1.2+1.2*1.2+1.2*1.2*2)*44$	491.04
			F2	26	$1.55*(1.2*2.2+1.2*1.2+1.2*2.2+1.2*1.2*2)*26$	386.88
						SUB TOTAL
	Excavation for Beam & Inspection, Maintenance Pits	m3	FB1, FB1A	66	$(1.2+2)*0.85*0.5*6*1/2*66$	269.28
			FB2	32	$(1.1+1.8)*0.65*0.5*6*1/2*32$	90.48
			FB3	38	$(1.1+1.6)*0.5*0.5*3*1/2*38$	38.48
			Pits		$(2.2+4.6)*1.6*1/2*12*2/3*2+6*6*2*0.85*1/2$	117.64
						SUB TOTAL
				TOTAL	5%	1739.44
3C0102	Backfilling for Slab	m3			$1739.44-251.74*1.1$	1462.53
TOTAL						

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CHECKED BY	<i>LOH</i>	<i>Agjo</i>

LA UNION PORT DEVELOPMENT PROJECT  
BUILDING WORK

Quantity Calculation Sheet  
Piling Work

PAY ITEM NO	DISCRIPTION	TOTAL Qty	UNIT SUB TOTAL	CALCULATION			
3C02	MAINTENANCE AND REPAIR SHOP						
* P1(L; 4000)	400*400	79	Nos				
* P2(L; 4000)	450*450	44	Nos				
	sum	123	Nos				
CONCRETE		86.26	m3	50.56	1.12	*	79 * 4/7
				35.70	1.42	*	44 * 4/7
STRAND ROPE (6-φ 1/2")		2904.00	m	2904.00	42.0	*	121 * 4/7
D16		2105.40	Kg	2105.40	30.45	*	121 * 4/7
D10 (SPIRAL)		6703.37	Kg	2689.14	90.5	*	52 * 4/7
				4014.22	101.81	*	69 * 4/7

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CHECKED BY	CEH	Aug 02

PILE



LA UNION PORT DEVELOPMENT PROJECT

QUANTITY CALCULATION SHEET

[ 3C03 CONCRETE AND FORMWORK ]

MAINTENANCE AND REPAIR SHOP

SUMMARY OF CONCRETE/FORMING/RE-BAR

ITEM	CONCRETE (m3)	FORMING (m2)	REINFORCEMENT BAR (m)								TOTAL	
			D10	D13	D16	D19	D22	D25	D29	D32		
1 Foundation	108.60	329.12		5374.40	1838.00							
2 Foundation Beam	160.25	755.08	1248.38	6215.24					7388.94			
3 Column(-1FL)	19.95	116.87										
4 Column(+1FL)	46.63	270.40	2227.84						2006.84			
5 Slab(1FL)	208.76		1928.4	19277.52								
6 Slab(2FL)	7.31											
-1FL SUB TOTAL	497.56	1471.46	5404.62	30867.16	1838.00				9395.78			
+1FL	53.93											
	Unit Weight(kg/m)		0.56	0.995	1.56	2.25	3.04	3.98	5.04	6.23		
	Weight NET (ton)		3.03	30.71	2.87			37.40				74.00
	Weight +Loss 4%(ton)		3.15	31.94	2.98			38.89				76.96

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CHECKED BY	<i>Alv</i>	Aug.02

SUMMARY ;FL BASE (1)

CONCRETE (m3)											
	FOUNDATION	FOUNDATION BEAM	MAT SLAB	COLUMN	BEAM	SUB BEAM	SLAB	Wall	STAIR	MISCELLANEOUS	TOTAL
-1FL	108.60	160.25		19.95			208.76				497.56
+1FL				46.63			7.31				53.93
TOTAL	108.60	160.25		66.57			216.07				551.49

FORMING (m2)											
	FOUNDATION	FOUNDATION BEAM	MAT SLAB	COLUMN	BEAM	SUB BEAM	SLAB	Wall	STAIR	MISCELLANEOUS	TOTAL
-1FL	329.12	755.08		116.87							1201.07
+1FL				270.40							270.40
TOTAL	329.12	755.08		387.266							1471.46

<b>CALCULATION</b>		
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CHECKED BY	Colt	Aug 02

LA UNION PORT DEVELOPMENT PROJECT  
[ 3C03 CONCRETE AND FORMWORK ]

QUANTITY CALCULATION SHEET

MAINTENANCE AND REPAIR SHOP

SUMMARY :FL BASE (2)

RE-BAR (kg)											
	FOUNDATION	FOUNDATION BEAM	MAT SLAB	COLUMN	BEAM	SUB BEAM	SLAB	Wall	STAIR	MISCELLANEOUS	TOTAL
-1FL	8,543.4	37,742.9		9,604.2			21,071.5				76,962.0
+1FL											0.0
TOTAL	8,543.4	37,742.9		9,604.2			21,071.5				76,962.0

RE-BAR (kg)										
	D10	D13	D16	D19	D22	D25	D29	D32		TOTAL
FOUNDATION		5561.43	2981.97							8,543.4
FOUNDATION BEAM	727.1	6,431.5				30,584.3				37,742.9
MAT SLAB										
COLUMN	1,297.5					8,306.7				9,604.2
BEAM										
SUB BEAM										
SLAB	1,123.1	19,948.4								21,071.5
Wall										
STAIR										
MISCELLAN.										
TOTAL	3,147.7	31,941.3	2,982.0			38,891.0				76,962.0

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CHECK BY: C.H	Aug.02

BREAK DOWN OF SUMMARY

Location	Symbol	CONCRETE (m3)				FORMING (m2)				RE-BAR (m)													
		Width	Height	Length	Qty	Total	Width	Height	Qty	m2	Symbol	Dia	Length	Nos	Qty	D10	D13	D16	D19	D22	D25	D29	
MAINTENANCE AND REPAIR SHOP																							
	Base		108.60			108.60		329.12		329.12						0.0	5374.4	1838.0	0.0	0.0	0.0		
	FG					101.51				482.13													
	FB					58.73				272.95													
	FG+FB		160.25					755.08							1248.4	6215.2	0.0	0.0	0.0	7388.9			
	C(-FL)		19.95			19.95		116.87		116.87													
	C(1F)			46.63		46.63			270.40	270.40													
	C SUM				66.57		387.27								2227.8	0.0	0.0	0.0	0.0	2006.8			
	1F Slab		208.76			208.76										19277.5							
	2F Slab			7.31		7.31									1928.4								
	Slab SUM				216.07																		
	TOTAL		497.56	53.93		551.49		1201.1	270.40	1471.46					m	5404.6	30867.2	1838.0	0.0	0.0	9395.8		
			-1FL	+1FL				-1FL	+1FL						Kg	3026.6	30712.8	2867.3	0.0	0.0	37395.2		
														x1.04									
														SUM	76.96	ton	3.15	31.94	2.98	0.00	0.00	38.89	

<b>CALCULATION</b>		
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FOUNDATION

Location	Symbol	CONCRETE (m3)					FORMING (m2)				RE-BAR (m)												
		Width	Height	Length	Qty	Total	Width	Height	Qty	m2	Symbol	Dia	Length	Nos	Qty	D10	D13	D16	D19	D22	D25	D29	
*	Base																						
	F1	1.00	1.00	0.60	27	16.20	4.00	0.60	27	64.80	B.L	16	1.00	6	27			162.0					
											B.L	16	1.00	6	27			162.0					
											T.L	13	2.8	12	27		907.2						
											T.L	13	4.4	2	27		237.6						
	F2	1.20	1.20	0.70	44	44.35	4.80	0.70	44	147.84	B.L	16	1.20	7	44			369.6					
											B.L	16	1.20	7	44			369.6					
											T.L	13	3.0	14	44		1848.0						
											T.L	13	5.2	2	44		457.6						
	F3	1.20	2.20	0.70	26	48.05	6.40	0.70	26	116.48	B.L	16	2.20	7	26			400.4					
											B.L	16	1.20	12	26			374.4					
											T.L	13	4.4	5	26		572.0						
											T.L	13	3.0	12	26		936.0						
											T.L	13	8.0	2	26		416.0						
TOTAL	Base	SUM				108.60				329.12					m	0.00	5374.40	1838.00	0.00	0.00	0.00	0.00	
															kg	0.00	5347.53	2867.28	0.00	0.00	0.00	0.00	

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CHECKED BY: <i>L.A.A.</i>	<i>Dyos</i>

FOUNDATION BEAM (1)

Location	Symbol	CONCRETE					FORMING				RE-BAR (m)											
		T(m)	H(m)	L(m)	Nos	Total(m <sup>3</sup> )	W(m)	L(m)	Nos	Total(m <sup>2</sup> )	Symbol	Dia	L(m)	Nos	Qty	D10	D13	D16	D19	D22	D25	
FB1										TB	25	2.73	4	40								436.8
Out End										BB	25	2.73	3	40								327.6
										STR	13	2.10	29	40		2436.0						
										WB	10	5.54	2	40	443.2							
										Tie	10	0.25	7	40	70.0							
Center										TB	25	3.00	4	40								480.0
										BB	25	3.00	6	40								720.0
IN End										TB	25	2.73	6	40								655.2
										BB	25	2.73	3	40								327.6
FB1A										TB	25	2.73	3	26								212.9
Out End										BB	25	2.73	3	26								212.9
										STR	13	2.10	29	26		1583.4						
										WB	10	5.54	2	26	288.1							
										Tie	10	0.25	7	26	45.5							
Center										TB	25	3.00	3	26								234.0
										BB	25	3.00	6	26								468.0
IN End										TB	25	2.73	6	26								425.9
										BB	25	2.73	3	26								212.9
FB2										TB	25	2.73	3	32								262.1
Out End										BB	25	2.73	3	32								262.1
										STR	13	1.58	29	32		1466.2						
										WB	10	5.54	2	32	354.6							
										Tie	10	0.21	7	32	47.0							
Center										TB	25	3.00	3	32								288.0
										BB	25	3.00	5	32								480.0
IN End										TB	25	2.73	5	32								436.8
										BB	25	2.73	3	32								262.1
FB3										TB	25	3.00	3	38								342.0
										BB	25	3.00	3	38								342.0
										STR	13	1.28	15	38		729.6						
SUB TOTAL															(m)	1248.4	6215.2					7388.9
															(kg)	699.1	6184.2					29408.0

<b>CALCULATION</b>	
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FOUNDATION BEAM (2)

Location	Symbol	CONCRETE (m3)					FORMING (m2)				RE-BAR (m)													
		Width	Height	Length	Qty	Total	Width	Height	Qty	m2	Symbol	Dia	L(m)	Nos	Qty	D10	D13	D16	D19	D22	D25	D29	D29	
*	FG																							
A.E	FB1	0.35	0.85	5.23	2	3.11	1.52	5.23	2	15.90														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.42	2	3.22	1.52	5.42	2	16.48														
		0.35	0.85	5.23	2	3.11	1.52	5.23	2	15.90														
B	FB1	0.35	0.85	5.00	1	1.49	1.34	5.00	1	6.70														
		0.35	0.85	4.60	1	1.37	1.34	4.60	1	6.16														
C.D	FB1	0.35	0.85	5.00	2	2.98	1.34	5.00	2	13.40														
		0.35	0.85	4.60	2	2.74	1.34	4.60	2	12.33														
1	FB1	0.35	0.85	4.81	1	1.43	1.52	4.81	1	7.31														
		0.35	0.85	5.42	1	1.61	1.52	5.42	1	8.24														
		0.35	0.85	10.81	1	3.22	1.52	10.81	1	16.43														
2-7	FB1	0.35	0.85	22.20	6	39.63	1.34	22.20	6	178.49														
8,9	FB1	0.35	0.85	4.81	2	2.86	1.34	4.81	2	12.89														
		0.35	0.85	5.42	2	3.22	1.34	5.42	2	14.53														
		0.35	0.85	5.42	2	3.22	1.34	5.42	2	14.53														
		0.35	0.85	4.81	2	2.86	1.34	4.81	2	12.89														
10	FB1	0.35	0.85	4.81	1	1.43	1.52	4.81	1	7.31														
		0.35	0.85	5.42	1	1.61	1.52	5.42	1	8.24														
		0.35	0.85	5.42	1	1.61	1.52	5.42	1	8.24														
		0.35	0.85	4.81	1	1.43	1.52	4.81	1	7.31														
	FG	SUM				101.51				482.13														
*	FB																							
B	FB3	0.30	0.50	41.25	1	6.19	0.64	41.25	1	26.40														
C.D	FB3	0.30	0.50	40.60	2	12.18	0.64	40.60	2	51.97														
1-10	FB2	0.30	0.65	23.00	9	40.37	0.94	23.00	9	194.58														
	FB	SUM				58.73				272.95														
	SUB TOTAL					160.25				755.08														

**CALCULATION**

Detailed Design  
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COLUMN

Symbol	CONCRETE					FORMING				RE-BAR (m)											
	T(m)	H(m)	L(m)	Nos	Total(m <sup>3</sup> )	W(m)	L(m)	Nos	Total(m <sup>2</sup> )	Symbol	Dia	L(m)	Nos	Qty	D10	D13	D16	D19	D22	D25	
C1				20				20		MB	25	3.97	14	20							1111.6
										Hoop	10	2.56	31	20	1587.2						
C2										MB	25	3.97	12	11							524.0
										Hoop	10	2.28	31	11							
C3										MB	25	2.90	8	16							371.2
										Hoop	10	1.54	26	16	640.6						
C(-FL)																					
C1	0.58	1.00	0.85	20	9.86	3.16	0.85	20	53.72												
C1A	1.00	0.58	0.85	1	0.49	3.16	0.85	1	2.69												
C2	1.00	0.58	0.85	8	3.94	3.16	0.85	8	21.49												
C3	0.58	0.58	1.05	16	5.65	2.32	1.05	16	38.98												
C(-FL) SUM					19.95				116.87												
C(1F)																					
C1	0.58	1.00	2.10	20	24.36	3.16	2.10	20	132.72												
C1A	1.00	0.58	2.10	1	1.22	3.16	2.10	1	6.64												
C2	1.00	0.58	2.10	8	9.74	3.16	2.10	8	53.09												
C3	0.58	0.58	2.10	16	11.30	2.32	2.10	16	77.95												
C(+FL) SUM					46.63				270.40												
SUB TOTAL					66.57				387.27					(m)	2227.8						2008.8
														(kg)	1247.6						7987.2

<b>CALCULATION</b>	
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LA UNION PORT DEVELOPMENT PROJECT

QUANTITY CALCULATION SHEET

[ 3C03 CONCRETE AND FORMWORK ]

MAINTENANCE AND REPAIR SHOP

SLAB

Location	Symbol	CONCRETE					FORMING				RE-BAR (m)														
		T(m)	H(m)	L(m)	Nos	Total(m <sup>3</sup> )	W(m)	L(m)	Nos	Total(m <sup>2</sup> )	Symbol	Dia	L(m)	Nos	Qty	D10	D13	D16	D19	D22	D25				
	S:1F										S.Top	13	12.00	121	1		1452.0								
											S.Top	13	7.56	121	1		914.8								
											S.Bom	13	12.00	121	1		1452.0								
											S.Bom	13	7.56	121	1		914.8								
											L.Top	13	9.00	542	1		4878.0								
											L.Top	13	8.00	271	1		2168.0								
											L.Bom	13	9.00	542	1		4878.0								
											L.Bom	13	8.00	271	1		2168.0								
	S1										S.Long	10	23.40	31	1	725.4									
	2F PC Slab										S.Short	10	6.00	118	1	708.0									
	S2										S.Long	10	45.00	11	1	495.0									
	1F SLAB ON GRADE										S.Short	13	2.00	226	1	452.0									
	S2 t150	2.00	45.00	0.15	1	13.50																			
1-2	S1t180	5.275	5.60	0.18	2	10.63																			
		5.275	5.70	0.18	2	10.82																			
2-3	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
3-4	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
4-5	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
5-6	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
6-7	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
7-8	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
8-9	S1t180	5.35	5.60	0.18	2	10.79																			
		5.35	5.70	0.18	2	10.98																			
9-10	S1t180	5.275	5.60	0.18	2	10.63																			
		5.275	5.70	0.18	2	10.82																			
	1F Slab	SUM				208.76																			
2F	PC Slab	6.09	24.00	0.05	1.00	7.31																			
	2F Slab	SUM				7.31																			
	SUB TOTAL					216.07																			
																(m)	1928.4	19277.5							
																(kg)	1079.9	19181.1							

<b>CALCULATION</b>		
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CHECKED BY	<i>Coll</i>	<i>Aug 02</i>

LA UNION PORT DEVELOPMENT PROJECT  
[ 3C04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
MAINTENANCE AND REPAIR SHOP

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO					
COLUMN	(Axis)A,E通 C1	W24x84 →外H-612x230x12x20	22050.00	kg		8.0*10*2	125.0	5	21000.00						
	8通 C1	W24x84 →外H-612x230x12x20									8.0*1	125.0	5	1050.00	
COLUMN	1,8,9,10通 C2	W21x62 →外H-533x210x10x16	11061.00	kg		12.0*4	92.0	5	4637.00						
		W21x62 →外H-533x210x10x16									9.5*7	92.0	5	6424.00	
COLUMN	A,E通 C3	W8x21 →H-210x134x6x10	6900.48	kg		8.0*12	31.0	5	3124.80						
	1,10通 C3	W8x21 →H-210x134x6x10									9.0*3	31.0	5	878.85	
	1,10通 C3	W8x21 →H-210x134x6x10									11.0*1	31.0	5	358.05	
	1,8,9,10通 C3	W8x21 →H-210x134x6x10									OPENING	3.5*2	31.0	5	227.85
	1,8,9,10通 C3	W8x21 →H-210x134x6x10									OPENING	4.5*1	31.0	5	146.48
	1,8,9,10通 C3	W8x21 →H-210x134x6x10									OPENING	5.5*3	31.0	5	537.05
	10通 C3	W8x21 →H-210x134x6x10									OPENING	2.5*4	31.0	5	325.48
	B',C'通 C3	W8x21 →H-210x134x6x10									SKYLIGHT ROOF	2.5*16	31.0	5	1301.92

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LA UNION PORT DEVELOPMENT PROJECT  
[ 3C04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
MAINTENANCE AND REPAIR SHOP

ITEM	LOCATION	DISCRPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
BEAM	1~10通 B1	W24x84 →外H-612x230x12x20	32812.50	kg	ROOF	(12.5*2)*10	125.0	5	32812.5	
BEAM	A,B,C,D,E,通 B2	W8x21 →H-210x134x6x10	15526.35	kg	ROOF	54.0*5	31.0	5	8788.5	
	B',C,C'通 B2	W8x21 →H-210x134x6x10			SKYLIGHT ROOF	42.0*3	31.0	5	4101.3	
	2~9通 B2	W8x21 →H-210x134x6x10			SKYLIGHT ROOF	4.5*2*8	31.0	5	2636.6	
BEAM	1~10通,A~E間 B3	W6x20 →H-158x153x6.6x9	9011.52	kg	ROOF	(12.5*2)*9	29.8	5	7040.3	
	2~9通,B'~C'間 B3	W6x20 →H-158x153x6.6x9			SKYLIGHT ROOF	4.5*2*7	29.8	5	1971.3	
BEAM	8,9通,A~E間 B4	W10x54 →外H-256x255x9.4x16	5569.0	kg	SECOND LEVEL	5.5*4*3	80.36	5	5569.0	
BEAM	A~E通,8~9間 B5	W14x53 →外H-354x2050x9.5x17	2174.7	kg	SECOND LEVEL	5.25*5	78.9	5	2174.7	
BEAM	A,E通 B6	W6x25 →H-162x155x8x12	5624.70	kg	SECOND LEVEL	5.5*9*2	37.2	5	3887.0	
	1,10通 B6	W6x25 →H-162x155x8x12			SECOND LEVEL	22.5*2	37.2	5	1757.7	

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CHECKED BY: [Signature]      DATE: August



LA UNION PORT DEVELOPMENT PROJECT  
[ 3C04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
MAINTENANCE AND REPAIR SHOP

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
PURLIN	POLIN C-4" *1/16" @1000	C-100*50*1.6*13	4592.7	kg		54.0*15*2	3	5	4592.7	
RAFTER	POLIN C-4" *1/16" @1000	C-100*50*1.6*13	3410.2	kg		(24*7+13*4)*2+54*7*2*0.85	3	5	3410.2	
	C (LGS) ;TOTAL		8,003	kg						
STUD		C-4*5.4→C-100*40	849.1	kg		100.7	8.03	5	849.1	
	C;TOTAL		849	kg						

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LA UNION PORT DEVELOPMENT PROJECT  
 [ 3C04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET  
 MAINTENANCE AND REPAIR SHOP

ITEM	LOCATION	DISCRPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss %	+Loss 5% TOTAL	MEMO
BLASIN G	BR-1	L3"x3"x3/8" →L-75x75x9	585.648	kg	SKYLIGHT ROOF	3.5*2*8	9.96	5	585.6	
BLASIN G	BR-1	L3"x3"x5/8" →L-75x75x12	3439.800	kg	ROOF	3.5*8*9	13.0	5	3439.8	
BLASIN G	A,E通 BR-2	L4"x4"x5/8" →L-100x100x10	3481.013	kg		3.0*8*2	14.9	5	751.0	
	A,E通 BR-2	L4"x4"x5/8" →L-100x100x10				3.5*8*2	14.9	5	876.1	
	1通 BR-2	L4"x4"x5/8" →L-100x100x10				(4.5+3.0+3.5*6)*1	14.9	5	445.9	
	1,9,10通 BR-2	L4"x4"x5/8" →L-100x100x10				(3.0*5+2.5*3)*4	14.9	5.0	1408.1	
	L;TOTAL		7,506	kg						
	SUB TOTAL		136,130	kg						
	GUSSET PLATE , H.T.Bolt ,etc	*7%	9,529	kg						
	TOTAL		145,659	kg						

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LA UNION PORT DEVELOPMENT PROJECT  
[ 3C04 STRUCTURE STEEL WORK ]

PAINTING ON STEEL

QUANTITY CALCULATION SHEET  
MAINTENANCE AND REPAIR SHOP

ITEM	LOCATION	DISCRPTION	Qty	UNIT	FL	CALCULATION	m <sup>2</sup> /m	Loss %	+Loss 5% TOTAL	MEMO
COLUMN	A,E通 C1	W24x84 →外H-850x250x16x32	416.80	m2		8.0*10*2	2.44		390.40	
	8通 C1	W24x84 →外H-850x250x16x32				8.0*1	3.30	26.40		
COLUMN	1,8,9,10通 C2	W21x62 →外H-650x250x12x25	251.35	m2		12.0*4	2.05		98.40	
		W21x62 →外H-650x250x12x25				9.5*7	2.30	152.95		
COLUMN	A,E通 C3	W8x21 →H-250x125x6x9	185.50	m2		8.0*12	0.88		84.00	
	1,10通 C3	W8x21 →H-250x125x6x9				9.0*3	0.88	23.63		
	1,10通 C3	W8x21 →H-250x125x6x9				11.0*1	0.88	9.63		
	1,8,9,10通 C3	W8x21 →H-250x125x6x9			開口上	3.5*2	0.88	6.13		
	1,8,9,10通 C3	W8x21 →H-250x125x6x9			開口上	4.5*1	0.88	3.94		
	1,8,9,10通 C3	W8x21 →H-250x125x6x9			開口上	5.5*3	0.88	14.44		
	10通 C3	W8x21 →H-250x125x6x9			開口上下	2.5*4	0.88	8.75		
	B',C'通 C3	W8x21 →H-250x125x6x9			SKYLIGHT ROOF	2.5*16	0.88	35.00		

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ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	m <sup>2</sup> /m	Loss %	+Loss 5% TOTAL	MEMO
BEAM	1~10通 B1	W24x84 →外H-850x250x16x32	610.00	m2	ROOF	(12.5*2)*10	2.44		610.00	
BEAM	A,B,C,D,E,通 B2	W8x21 →H-250x125x6x9	409.50	m2	ROOF	54.0*5	0.88		236.25	
	B',C,C'通 B2	W8x21 →H-250x125x6x9			SKYLIGHT ROOF	42.0*3	0.88		110.25	
	2~9通 B2	W8x21 →H-250x125x6x9			SKYLIGHT ROOF	4.5*2*8	0.88		63.00	
BEAM	1~10通,A~E間 B3	W6x20 →H-200x100x5.5x8	201.60	m2	ROOF	(12.5*2)*9	0.70		157.50	
	2~9通,B'~C'間 B3	W6x20 →H-200x100x5.5x8			SKYLIGHT ROOF	4.5*2*7	0.70		44.10	
BEAM	8,9通,A~E間 B4	W10x54 →外H-550x200x9x19	160.76	m2	SECOND LEVEL	5.5*4*3	1.70		112.20	
BEAM	A~E通,8~9間 B5	W14x53 →外H-550x250x9x22			SECOND LEVEL	5.25*5	1.85		48.56	
BEAM	A,E通 B6	W6x25 →H-250x125x6x9	54.00	m2	SECOND LEVEL	5.5*2	0.38		37.13	
	1,10通 B6	W6x25 →H-250x125x6x9			SECOND LEVEL	22.5*2	0.38		16.88	

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LA UNION PORT DEVELOPMENT PROJECT  
[ 3C04 STRUCTURE STEEL WORK ]

PAINTING ON STEEL

QUANTITY CALCULATION SHEET  
MAINTENANCE AND REPAIR SHOP

ITEM	LOCATION	DISCRPTION	Qty	UNIT	FL	CALCULATION	m <sup>2</sup> /m	Loss %	+Loss 5% TOTAL	MEMO
BEAM	A,E通	W21x62 →外H-650x250x12x22	194.28	m2	FOR CRANE	42.0*2	2.05		172.20	
	1~8通	W21x62 →外H-650x250x12x22			FOR CRANE	0.6*8*2	2.30		22.08	
BLASING	BR-1	L3"x3"x3/8" →L-75x75x9	12.60	m2	SKYLIGHT ROOF	3.5*2*8	0.23		12.60	
BLASING	BR-1	L3"x3"x5/8" →L-75x75x12	56.70	m2	ROOF	3.5*8*9	0.23		56.70	
WALL BLASING	A,E通 BR-2	L4"x4"x5/8" →L-100x100x10	66.75	m2		3.0*8*2	0.30		14.40	
	A,E通 BR-2	L4"x4"x5/8" →L-100x100x10				3.5*8*2	0.30		16.80	
	1通 BR-2	L4"x4"x5/8" →L-100x100x10				(4.5+3.0+3.5*6)*1	0.30		8.55	
	1,9,10通 BR-2	L4"x4"x5/8" →L-100x100x10				(3.0*5+2.5*3)*4	0.30		27.00	
TOTAL PAINTING AREA OF MAIN FRAME			2483.79	m2						
TOTAL PAINTING AREA OF SUB FRAME (PURLIN ,RAFTER ,GUSSET PLATE ,etc)			136.05	m2						

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## QTY. CALC.(MAINT&amp;REPAIR SHOP FINISHING)

## 3007 : TILE WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C0701	Floor Ceramic Tile 33*33*8mm	m <sup>2</sup>	Interior	1F	6*6+4.5*12	90.00
					TOTAL+ 5%	94.50
3C0702	Floor Ceramic Tile 20*20*8mm	m	Toilet		9.2*6	55.20
					TOTAL+ 5%	57.96
3C0703	Step Nosing Tile (Interior)	m	Service Pit		1.0*7Steps*2	14.00
					TOTAL+ 5%	14.70
3C0704	Internal Wall Ceramic Tile 20*30*8mm	m <sup>2</sup>	Toilet,		$(6*6+3.225*2)*2.1+(4.45+0.6+1.4+5.8+1.6*4+4.2+1.5*4+0.5)*2*2.1-19.53$	192.89
					TOTAL+ 5%	202.53
3C0705	Granite Tile Shelf Top	m			$(4.3+2.4)*0.15$	1.01
					TOTAL+ 5%	1.06

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QTY. CALC.(MAINT&.REPAIR SHOP FINISHING)

3C08 : PLASTERING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.		
3C0801	Cement Motar Plaster To Wall	m	Interior	1F	$(6+36)*2.2+12*1+(42+24)*2*2.1-\text{Opening}96.78$	284.82		
			(Base for AEP)					
			External Wall		$5.4*(9+4)*2*2.1-\text{Opening}96.78$	198.06		
			(Base for AEP)					
			SUB TOTAL					482.88
			TOTAL+ 5%					507.02
3C0804	Control Joint w20 ,Calking	m	External Wall	Axis :1&10	$18*2.1+4*1$	41.8		
				Axis :A,E	$32*2.1$	67.2		
			SUB TOTAL					109.00
			TOTAL+ 5%					114.45
3C0802	Cement Mortar Skirting Without Paint , H:100mm	m			$(54+24)*2+6*8+(24*2+6)-12$	246		
			TOTAL+ 5%					258.30
3C0803	Cement Motar Plaster To Floor	m			$4.5*3.2+18*1.5$	41.4		
			TOTAL+ 5%					43.47
3C0805	Concrete Slab Steel Trowel Floor Finish w/Hardner Painting	m	EQP.Maint Area		$24*6+2.8*4.6+6*7*24+6*6*2$	1236.88		
			TOTAL+ 5%					1,298.72
						-		

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QTY. CALC.(MAINT&REPAIR SHOP FINISHING)

3C10 : PAINTING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C1001	AEP (On Mortar Plaster)	m <sup>2</sup>	Internal Wall		Same as Cement Mortar Plaster to Wall	284.82
	AEP (On Gypsum Board w/ Suspended Ceiling)	m <sup>2</sup>	Mezzanine Floor		(6+4.5)*6	63.00
	AEP (On Gypsum Board w/ LGS Frame Wall)	m <sup>2</sup>			3.1*21.2+3*21.2+(4.5+2.8)*6.1+3*1.5+3.1*5.2*7+3*5.2*7+3*4.5*6	481.39
	AEP (On Cement Fiberboard w/LGS Frame)	m <sup>2</sup>			Same as Cement Fiberboard to Wall	159.14
					SUB TOTAL	988.35
					TOTAL+ 5%	1037.77
3C1002	AEP (On Mortar Plaster ; Exterior)	m <sup>2</sup>	External Wall		Same as Cement Mortar Plaster For External Wall	198.06
						TOTAL+ 5%
3C1003	OP	m <sup>2</sup>	On Wooden	Door	(D2) ;0.8*2.1*2*2+(D4) ;0.7*2.1*6*2	22.96
					Door Frame ,Skirting 3.94+10.54	14.48
	m <sup>2</sup>	On Steel	Steel Door ,Shutter	(D1) ;0.9*2.1*2*4 + (D3) ;0.9*2.1*2*3 + (D5) ;4.5*4.5*2*5	811.34	
				+(D6) ;6.5*4.65*2*1		
				SUB TOTAL	848.78	
				TOTAL+ 5%	891.22	
TOTAL						-

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QTY. CALC.(MAINT&.REPAIR SHOP FINISHING)

3C11 : CARPENTRY AND JOINERY WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C1102	Wodden Door Frame	m	D2 ,D4		$(0.8+2.1*2)*2+(0.7+2.1*2)*6$	39.4
					TOTAL+ 5%	41.37
3C1101	Wodden Skirting	m	Mezzanine FL		$6*8+4.5*6+3.2*2+24$	105.4
TOTAL						

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QTY. CALC.(MAINT&REPAIR SHOP FINISHING)

3C12 : INTERIOR FINISHING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.		
3C1201	Cement Fiberboard W/Suspended Ceiling	m <sup>2</sup>	Interior		(6+3.2)*6+4.5*3.2	69.6		
					TOTAL+ 5%	73.08		
3C1203	Cement Fiberboard W/LGS Frame Wall	m <sup>2</sup>	Toilet		0.4*5.2*6+0.4*0.32*2+(8.2-2.1)*24	159.14		
					TOTAL+ 5%	167.09		
3C1204	Gypsum Board W/LGS Frame Wall	m <sup>2</sup>			Same As AEP	481.39		
					TOTAL+ 5%	505.46		
3C1202	Gypsum Board W/Suspended Ceiling	m <sup>2</sup>			Same As AEP	63.00		
					TOTAL+ 5%	66.15		
TOTAL						-		

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3C13 : MISCELLANEOUS METAL WORK (1)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C1303	Steel Handrail ; h.1.200 Baluster Steel Pipe dia;25mm @120 Handrail Steel Pipe dia;34mm	m	Mezzanine Corridor			17.20
					Stair	9.50
					SUB TOTAL	26.70
					TOTAL+ 5%	28.04
3C1302	Metal Flashing Plate (Prices shall be included in Formed Steel Sheet Work)	m	External Wall (Top of Conc.Block ,Around Opening)		(24+54)*2+(5-2.1)*2*6	190.8
					TOTAL+ 5%	200.34
3C1301	Formed Steel Roof Sheet (Including Glass Fiber Board Sky Light)	m <sup>2</sup>	Roof		54.6*14.5*2+Overlapping43*1.5*2	1712.40
					TOTAL+ 5%	1798.02
3C1302	Formed Steel Wall Sheet	m <sup>2</sup>	External Wall		(6.5-2.1)*24*2+(1.5+6.5)*13.5*2+2.44*4*2*2+(8.2-2.1)*54*2+2.4*42*2-- Opening238.85	1087.79
					TOTAL+ 5%	1142.18
3C1304	Eaves Gutter (Galvanized Steel Sheet 0.6mmTHK Size .h;500mm*w;400mm	m			2nos	160.40
					TOTAL+ 5%	168.42
3C1305	Eaves Gutter (Galvanized Steel Sheet 0.6mmTHK Size .h;200mm*w;200mm	m	Monitor Roof		2nos	84.00
					TOTAL+ 5%	88.20
3C1307	Steel Guard Pipe Of Downspout Bottom ; h,2m	m			10nos	20.00
					TOTAL+ 5%	21.00
TOTAL						-

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QTY. CALC.(MAINT&REPAIR SHOP FINISHING)

3C13 : MISCELLANEOUS METAL WORK (2)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C1309	Metal Wire Mesh for Bird Proof	m <sup>2</sup>	Monitor Roof		5.6*1.4*7	54.88
					TOTAL+ 5%	57.62
3C1308	Steel Grating Cover of Drainage Gutter w;300mm	m	Wash out		5.2	5.20
TOTAL						

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QTY. CALC.(MAINT&REPAIR SHOP FINISHING)

3C14 : Miscellaneous Work

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C1401	Downspout PVC Pipe 100mm DIA	m	Above FL+2.0m		$(7.5+1.2-2)*10$	67.00
			Monitor Roof		$(1.5+0.8)*8$	18.40
SUB TOTAL						85.40
TOTAL+ 5%						89.67
TOTAL						

<b>CALCULATION</b>		
Detailed Design		
on Port Reactivation Project		
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CALC FILE No.:		
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PREPARED BY	<i>Q.F</i>	Jul.02
CHECKED BY	<i>Cal</i>	<i>Arjo</i>

QTY. CALC.(MAINT&REPAIR SHOP FINISHING)

3C15 : Outdoor Work

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3C1501	PVC Drainage Pipe Elbow Underground to Gutter or Catch Basin	m	Below GL.+00		1.0*5*2+33.2	43.20
					TOTAL+ 5%	45.36
3C1503	Conc.Pipe 200mmdia	m				60.00
					TOTAL+ 5%	63.00
3C1502	Conc.Drain Ditch w;400 w/Conc Cover	m				54.00
					TOTAL+ 5%	56.70
					Conc Volume (0.6*0.1+0.49*0.1*2+0.6*0.1)*54=	11.77 m3
3C1504	Conc.Catch Basin ;800*800	nos			5 nos	
					Conc Volume (0.8*0.8*0.1+0.62*0.1*4+0.8*0.8*0.1)*5=	1.88 m3
TOTAL						

<b>CALCULATION</b>		
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CALC FILE No.:		
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	INITIAL	DATE
PREPARED BY	G.F	Jul 02
CHECKED BY	Colt	Aug 02