

LA UNION PORT DEVELOPMENT PROJECT  
[ 3A04 STRUCTURE STEEL WORK ]

QUANTITY CALCULATION SHEET

PORT ADMINISTRATION BUILDING

ITEM	LOCATION	DISCRIPTION	Qty	UNIT	FL	CALCULATION	kg/m	Loss 5%	+Loss5% TOTAL	MEMO
CANOPY ENTRANCE	MAIN BEAM Axis 4,5	W14x34 →外H-355x171x7x12		kg		18*2	50.6	5	1912.68	
	BEND BEAM	W8x10 →外H-200x100x4.3x5.2				2*3.93*3.14*100/360*9	14.9	5	965.31	
	SUB BEAM (HORIZONE)	C8x13.75→外-200x60				1.2*11*2+1.9*10*2	20.5	5	1386.21	
	CONNECTION BEAM	W8x10 →外H-200x100x4.3x5.2				1.9*3*9	14.9	5	802.59	
	PURLIN	POLIN C4x2×1/16" →外-100x50×13×1.6				16.3*8+19*+9	2.7	5	854.47	
	BRACING ,GUSSET PL., ANCHOR BOLT					7%			414.49	
STAIR	COLUMN	□125*125*12.5				10.9*2	42.30	5	968.25	
	BEAM (SUB)	w8×15 →H206×102×6×8				2.0*3	22.32	5	140.62	
	BEAM (SLOPE)	C8x18.75→外-200x64				6.25*4+5*8	27.90	5	1904.18	
	SUB TOTAL		9348.79	kg						
	GUSSET PLATE H.T.Bolt ,etc	*7%	654.42	kg						
	TOTAL		10,003	kg						

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	P.F. Jul.07
CHECKED BY	DATE
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QTY. CALC.(ADM. FINISHING)

3A05 : MASONRY WORK (1)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A0501	Concrete Block 200mm.thk (Including Conc.Lintel)	m <sup>2</sup>		1F	Axis.A $(15+2.5+1.2+3)*4.8+3*4.5+(12-1.2)*4.4-\text{Opening}12.3$	152.88
					Axis.C,6&4 $(12-1.2)*4.4+7.3*4.4+13.4*4.4+(12+2.5-1.2)*4.4-23.30$	173.82
					Axis.1,8 $(16-1.2)*4.5+(16-1.2+1.2)*4.5-25.82$	112.78
				2,3F	Axis.A,C $(30*2-0.6*12)*(3.8+3.8-0.65*2)-195.30$	137.34
					Axis.2,8 $(16*2-0.6*4)*(3.8+3.8-0.7*2)-18.68$	164.84
				4,5&6F	$(9-1.05+8-0.35+2.4*2+2)*(3.8*3-0.6*3)-29.23$	185.81
					SUB TOTAL	927.47
					TOTAL+ 5%	973.84
3A0502	Concrete Block 150mm.thk (Including Conc.Lintel)	m <sup>2</sup>		1F	$(9+17+0.7+15+3.5*2+6+2.5+18+8*3+6+2.2+2+12+6*3+6+3.5+3+12+2.5+8+4.2)*5-\text{Opening}112.72$	780.28
				2F	$(36*2-3+6*5+2.8+2.7*2+3+2+2.5)*3.6-\text{Opening}68.18$	344.74
				3F	$(36*2-3+8*2+2.8+2.7+2.2+3+2+2.5)*3.6-\text{Opening}62.18$	298.54
				4F	$(12+8+4.45*2+3+1.8+2.5)*3.6-\text{Opening}21.88$	108.44
				5F	$(12+8+4.45+3+1.8+2.5)*3.6-\text{Opening}17.38$	96.92
				6F	$(12+8+4.45+3+1.8+2.5)*3.6-\text{Opening}17.38$	96.92
					SUB TOTAL	1725.84
					TOTAL+ 5%	1,812.13
3A0503	Concrete Block 100mm.thk (Including Conc.Lintel)	m <sup>2</sup>		1F	$(2.5+3.5+3)*5.0-0.9*2.5*2$	40.50
				2F	$(2.5+3.5+3)*3.6-0.9*2.5*2$	27.90
				3F	$(2.5+3.5+3)*3.6-0.9*2.5*2$	27.90
					SUB TOTAL	96.30
					TOTAL+ 5%	101.12

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CHECKED BY	<i>D.H.</i>	<i>Aug 02</i>

QTY. CALC.(ADM. FINISHING)

3A05 : MASONRY WORK (2)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A0504	Brick Masonry	m	Parapet Wall	R6F	Approx. $(16+1.15+12)*2*0.5+(3+4)*2*0.5$	36.15
				R3F	$(36+16+1.8*2)*2*0.5+(2*3.14*6*0.5+10.48*2+12)*0.5$	81.50
				R1F	Axis 1-2 $(6+1.5+16+1.2)*2*0.5$	24.70
					Axis 3-6 $Approx. (20+11)*2*0.5$	31.00
SUB TOTAL						173.35
TOTAL+ 5%						182.02

**CALCULATION**  
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CHECKED BY	<u>[Signature]</u>	<u>Aug 02</u>

QTY. CALC.(ADM. FINISHING)

3A06 : WATERPROOFING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A0601	Waterproof Membrane 2Layer	m	Toilet ,Kitchen	2F	$6*6-1.2*(3+0.8)-(2.7+0.7)*1.7+1.8*3.5$	31.96
				3F	$6*6-1.2*(3+0.8)-(2.7+0.7)*1.7+1.8*3.5+2*3$	37.96
				4F	$4.45*5.5+4.45*2.5$	35.60
				5F	$4.45*2.8$	12.46
				6F	$3*3$	9.00
					SUB TOTAL	126.98
					TOTAL+ 5%	133.33
3A0602	Waterproof Membrane 3Layer	m	Roof	R6F	$3.14*6*6*0.5+(2.48+8+1.15)*12+(16+1.15+12+3+4)*2*0.5$ (#) $3.14*6*6*0.5+(2.48+8)*12$	232.23
				R3F	$36*(16+1.8*2)-(\#)182.28+(36+18+1.8*2)*2*0.5+(16+12)*2*0.5$	608.92
				R1F	Axis 1~2 $(6+1.5)*(16+1.2)+(6+1.5)*2*0.5+((16+1.2)*2*0.5)$	153.70
					Axis 3~6 $Approx.10.5*20+(10.5+20)*2*0.5$	240.50
					Verandah $75.6$	75.60
					SUB TOTAL	1310.95
					TOTAL+ 5%	1,376.50

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QTY. CALC.(ADM. FINISHING)

3A07 : TILE WORK (1)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.	
3A0701	Floor Ceramic Tile 33*33*8mm	m	Interior	1F	$9*6+9*11.2+3*8+9*8+(6*8-2.5*4)+6*4.4+3*3.4+3*4+1.8*3.5+3*2.5$	351.20	
				2F	$36.5*2+3*0.5+1.2*(3+0.8)+1.2*3.5*9.25*6+5*6+4*6+3*2.8+(2.7+0.7)*1.7+1.8*3.5+3*2.5$	394.14	
				3F	$18.25*8+12.25*8+18.25*6+1.8*3.5+3*2.5+3*2.8+36.5*2+3*0.5+1.2*(3+0.8)+1.2*3.5$	458.96	
				4F	$3.14*6*6*0.5+2.48*12+4.45*2.5+6.25*2+3*0.5+1.8*8$	125.81	
				5F	$3.14*6*6*0.5+2.48*12+4.45*5.2+6.25*2+3*0.5+3*3+1.8*8$	146.82	
				6F	137.03	137.03	
				SUB TOTAL	1613.96		
			Staircase		$2.8*5.03+1.37+1.4*4+1.58*5+1.2*0.28*106+1.2*0.18*116$	89.63	
					TOTAL+ 5%	1788.76	
3A0702	Floor Ceramic Tile 20*20*8mm	m	Toilet	ALL	$(3*6+3*3+1.7*3)+6*6-1.2*(3+0.8)-(2.7+0.7)*1.7+2*3+6*6-1.2*(3+0.8)-(2.7+0.7)*1.7+4.45*5.5+4.45*2.8+3*3$	135.38	
						TOTAL+ 5%	142.12
3A0703	Step Nosing Tile (Interior)	m	Staircase	ALL	$1.2*116$ Steps	139.20	
						TOTAL+ 5%	146.16
3A0704	Floor Ceramic Tile 33*165*8mm	m	Exterior ;Ground Floor	Immigr. Custum Office	$(1.4+0.3*3+0.18*4)*1.5*2$	9.06	
				Cafeteria	$(11.5*11.5-8*8)*3.14*100/360+2*2.6+(0.3*3+0.18*4)*2.2*2$	71.86	
						SUB TOTAL	80.92
					TOTAL+ 5%	84.96	
3A0705	Step Nosing Tile (Exterior)	m	External Stair Steps	Immigr. Custum Office	$1.5*4*2$	12.00	
				Cafeteria	$2.2*4*2$	17.60	
						SUB TOTAL	29.60
						TOTAL+ 5%	31.08

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QTY. CALC.(ADM. FINISHING)

3A07 : TILE WORK (2)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.			
3A0706	Internal Wall Ceramic Tile 20*30*8mm	m <sup>2</sup>	Toilet.Kitchen	1F	$(6*2+1.7*2+1.5*2+3*2)*2.5+(6*2+3*2+1.5*2)*2.5+(3.5+1.8)*2*2.5$ -Opning17.43	122.57			
				2F	$(6+3)*2*2.5+(4.3+3)*2*2.5+(1.8+3.5)*2*2.5$ -Opening17.43	90.57			
				3F	$(6+3)*2*2.5+(4.3+3)*2*2.5+(1.8+3.5)*2*2.5+3*2*2*4$ -Opening23.04	98.96			
				4F	$(2.7+4.45)*2*2.5+(2.8+4.45)*2*2.5+(4.45+2.5)*2*2.5$ -Opening9.65	97.10			
				5F	$(4.45+2.8)*2*2.5$ -Opening3.09	33.16			
				6F	$(3+3)*2*2.5+(1.8+1.8)*2*2.5$ -Opening8.13	39.87			
				SUB TOTAL					482.23
				TOTAL+ 5%					506.34
3A0707	Ceramic Tile Skirting (Interior)	m	Interior	1F	$(9+6)*2+(9+11.2)*2+1.35*2+0.7*7+(6+4.4)*2+(3+3.4)*2+0.7*4+3*2+8+1*2+(9+8)*2+(3+4)*2*2-3.5+(2.5+4)*2+(2+1.3+4+2+2)+(3+3)*2+(3+2.5)*2$	236.20			
				2F	$(9.25+6)*2+(4+6)*2-1.5*3+(36.5+2)*2+0.5*2+3*2+3.5*2+(3+2.5)*2-1.5*16$	124.00			
				3F	$(18.25+8)*2+(12.25+8)*2+(18.25+6)*2+(3+2.8)*2+(3+2.5)*2+(36.5+2)*2+0.5*2+3*2+3.5*2-1.5*14-1.5*9$	220.60			
				4F	$3.14*6+2.48*2+12+(6.25+2)*2+0.5*2-1.5*2.5+(1.8+8)*2-1.5*4$	63.15			
				5F	$3.14*6+2.48*2+12+(4.45+5.2)*2+(6.25+2)*2+0.5*2-1.5*2.5+(1.8+8)*2-1.5*4+(3+3)*2$	94.45			
				6F	$3.14*6+2.48*2+12+(4.45+3)*2+(6.25+2)*2+0.5*2-1.5*2.5+(1.8+8)*2-1.5*3.5$	78.80			
				SUB TOTAL					817.20
				TOTAL+ 5%					858.06
3A0709	Ceramic Tile Skirting h:800mm (Exterior)	m <sup>2</sup>	Exterior :Ground Floor		$(42+2.5*2+0.4+16+0.8+16+8+21+8+12+2.5*2+17.2)*0.8$	121.12			
TOTAL+ 5%					127.18				
3A0708	External Wall Ceramic Tile	m <sup>2</sup>	Main Eatrance		$3.66*3.66*3.14*100/360-2.5*2.8+3.5*(12+2.5*2)$ -Opening21.15	43.03			
				TOTAL+ 5%					45.19

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## QTY. CALC.(ADM. FINISHING)

## 3A07 : TILE WORK (3)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A0710	Granite Stone Floor Tile	m	Interior	1F	12*8+3.14*8*8*100/360-	
					(12*5+2.5*4.5+4.2*3.5)+15*12.5+6*2.5*2+18*2+1.2*(3.5+3+0.5)+0.5*6	330.77
			Exterior	North Entrance	(5.5-0.35)*6+0.3*3+0.18*4	32.52
				South Entrance	11*6.1+6*1-4.3*2+0.3*3+0.18*4	66.12
					SUB TOTAL	429.41
					TOTAL+ 5%	450.88
3A0711	Granite Tile Skirting	m	Interior		2*3.14*8*100/360+12+8*2+2.5*2*2+3+6+18+18+2+9+12.5	120.46
					TOTAL+ 5%	126.48
3A0712	Granite Tile Shelf Top	m	Toilet	ALL	(2.5+5.6+(2.8+5.6)*2+3.9+2.9+3.8+1.7+1.8)*0.25	9.75
					TOTAL+ 5%	10.24

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QTY. CALC.(ADM. FINISHING)

3A08 : PLASTERING WORK (1)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.					
3A0801	Cement Motar Plaster To Wall	m	Interior	1F	$(9+11.2)*2*3+(9+6)*2*3+(15+12.5)*2*4+(6+2.5)*2*2*3.5+(3+3)*2*2.5+(8*2+12)*3+(9+8)*2*2.8+(8+3*2)*2.8+(6+4.4)*2*2.5+(3+3.4)*2*2.5+(18*2+3.5*2+3*2+1.2+2+2)*2.5+(6+4)*2*2.5+4*2*2.5+(4+3.5)*2*2.5+(3+2.5)*2*2.5$ -Opening313.43	839.67					
				2F	$(36.5+2)*2*2.5+(9.25+6)*2*2.8+(4+6)*2*2.8+(5+6)*2*2.5+(3+2.8)*2*2.5+(3+2.5)*2*2.5+(3*2+2.8+3.5*2+1.2)*2.5+(2.7+1.7)*2*2.5+(0.7+1.7)*2*2.5$ -Opening227.63	294.27					
				3F	$(18.25+8)*2*2.8+(18.25+6)*2*2.8+(6+5)*2*2.8+(4+3)*2*2.8+(12.25+8)*2*2.8+(36.5+2)*2*2.5+(3*2+2.8+3.5*2+1.2)*2.5+(3+2.8)*2*2.5+(3+2.5)*2*2.5$ -Opening211.61	576.89					
				4F	$(2.4*2+12)*2.8+(1.8+8)*2*2.5+(6.25+2)*2*2.5$ -Opening89.39	47.90					
				5F	$(2.4*2+12)*2.8*2.5+(4.45+5.2)*2*2.5+(1.8+8)*2*2.5+(3+3)*2*2.5+(6.25+2)*2*2.5$ -Opening94.45	191.65					
				6F	$(2.4*2+12)*2.8+(4.45+5)*2*2.8+(4.45+3)*2*2.5+(1.8+8)*2*2.5+(6.25+2)*2*2.5$ -Opening90.45	137.01					
				Staircase and Column	$(6+2.77)*2*24+(1*2+2.77)*4.8$ -Opening25.38+0.75*4*4*4	466.48					
				SUB TOTAL						2553.87	
				External Wall	(Base for AEP)	m	1F	$(42+2.5*2+0.4+1.2*5+16+1.5+16*0.6+16+0.8+8*2+15+42+2.5*2+0.4-12)*5.7$ - (Opening 113.21)-(Ceramic Tile 48.45)		771.43	
								2,3F	$(30.8*2+16.8*2)*7.9$ - (Opening 106.99*2)+(30*2+1.2*4)*2*1.5*3+(1.15*2+2)*1.5*3*2+(30*2+1.2*4)*0.8		1211.84
								4 RF	$(16+12)*2*12.4$ - (Opening 178.21)+(4.3+1.5*2)*1.5*2*3+0.5*4*3+(16+12)*2*1		643.89
								SUB TOTAL			
				TOTAL+ 5%						5440.08	
				3A0804	Control Joint :w20 ,Calking	m	External Wall	Axis : A	$(12-1.4)*2+4.6*6+2.5*4+4.6*2+(18-2.1)*4+3.1*9*2+(12-1.4)*6+3.1*6*3$	306.80	
								Axis : C,D	$(24-2.8)*2+4.6*10+2.5*4+4.6*2$	107.60	
Axis : 1	$(16-1.4)*6+4.6*6+(8-0.7)*3+4.6*4+0.6*2+4.6+3.1*6*2+(8+2.48-1)*6+3.1*4*3$	292.58									
Axis : 8	$(16-1.4)*6+4.6*6+(8-0.7)*2+4.6*3+4.6*6*2+(8+2.48-1)*6+3.1*4*3$	292.88									
SUB TOTAL								999.86			
TOTAL+ 5%						1049.85					

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QTY. CALC.(ADM. FINISHING)

3A08 : PLASTERING WORK (2)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.		
3A0802	Cement Mortar Skirting H:100mm	m	Storage		$(2.5+4)*2+(2.7+1.7+1.7+0.7)*2*2$	40.20		
					TOTAL+ 5%	42.21		
3A0803	Cement Mortar Floor	m	Carpet Base		$6*5+4*3+4.45*5$	64.25		
			Store Machine Room		$2.5*4+3*6+3*6+(2.7+0.7)*1.7+3*6+3*3$	78.78		
			SUB TOTAL					143.03
			TOTAL+ 5%					150.18

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QTY. CALC.(ADM. FINISHING)

3A00 : PLASTERING WORK (3)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.		
3A0805	Waterproof Cement Mortar	m <sup>2</sup>	Lift Pit		$(1.67+2.5)*2*1.4+1.67*2.5$	15.85		
			Verandah, valcony Floor (and Skirting h:200) and Eaves Roof					
			2,3F		$36*2*2*1.2+3*2.3*2+1.15*2+(36*2+1.2*4)*2*0.2+(1.15*2+1.5)*0.2$	220.38		
			4F		$3*2.3+1.15*2+(2+1.15*2)*0.2+(4+2)*1.2+(4+2)*0.2$	18.46		
			5,6,RF		$1.8*4.3*3+23.5*0.5+3*3+(4.3+1.5*2)*2*0.2$	46.89		
			SUB TOTAL					285.73
			TOTAL+ 5%					316.66
			3A0806	Waterproof Cement Mortar w/Wire Mesh	m	Roof Gutter w/Wire Mesh		
ALL		$(12+36*2+9*2+13+7+17)*0.5$				69.50		
Coping to Valcony ,Parapet Wall w/Wire Mesh								
2F		$(43.5*2+9.2+10.5*2+20+1.2*4)*0.2$				28.40		
3F		$(36*2+1.2*4+1.15+1.15*2)*0.2$				16.05		
4F		$(36*2+19.6*2)*0.2$				22.24		
5,6F		$(4.3+1.5*2)*2*0.2$				2.92		
RF		$(17.5+12)*2*0.2+0.8*0.8*4$				14.36		
SUB TOTAL						83.97		
TOTAL+ 5%						161.14		
3A0807	Color Cement Spray	m	Backsurface of Stair Slab		$1.2*2.6*9+1.2*3.6*8+1.2*(3.9+4.8)$	73.08		
			Exterior		$(\text{On Cement fiber board } 97.64)+(\text{Eaves } 2.6*2.1*3+1*1.6*2+1.8*4.3*3+23.5*0.5)$	152.19		
			SUB TOTAL					225.27
			TOTAL+ 5%					236.53
3A0808	Colored Waterproof Cement Mortar	m <sup>2</sup>	Flat Roof	R6F	$3.14*6*6*0.5+(2.48+8+1.15)*12$	196.08		
					$(\#) 3.14*6*6*0.5+(2.48+8)*12$			
				R3F	$36*(16+1.8*2)-(\#)182.28$	523.32		
				R1F	Axis 1~2 $(6+1.5)*(16+1.2)$	129.00		
					Axis 3~6 $\text{Approx. } 10.5*20$	210.00		
			SUB TOTAL					1,058.40
TOTAL+ 5%					1,111.32			

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CHECKED BY	ABH	Aug 02

## QTY. CALC.(ADM. FINISHING)

## 3A10 : PAINTING WORK(1)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.			
3A1001	AEP (On Mortar Plaster)	m <sup>2</sup>	Internal Wall (including staircase)		Same as Cement Mortar Plaster For Wall	2553.87			
	AEP (On Gypsum Board)	m <sup>2</sup>	3F, 4F & Staircase		4*2*2.8-0.9*2.5*2+1.8*2.8+0.7*2	24.34			
					SUB TOTAL	2578.21			
					TOTAL+ 5%	2707.12			
3A1002	AEP (On Mortar Plaster : Exterior)	m <sup>2</sup>	External Wall		Same as Cement Mortar Plaster For External Wall				
					SUB TOTAL	2627.16			
					TOTAL+ 5%	2758.52			
3A1003	OP	m <sup>2</sup>	On Wooden	Blind Box	149.7m*0.32m	47.90			
				Wooden Door	(D8) :0.9*2.5*2*31+ (D11) :1.2*2.5*2*3	157.50			
								SUB TOTAL	205.40
			On Steel	Steel Door	(D3) :1.7*2.5*2*35 + (D4) :0.9*2.5*2*15 + (D5) :1.7*2.5*2*3 + (D6) :0.9*2.5*2*7 + (D7) :0.8*2.1*2*9 + (D9) :1.35*2.5*2*3	472.49			
				Steel Metal Surface	Steel Ladder 2Sets				
					Steel Handrail				
					Hatch Cover				
								SUB TOTAL	472.49
					TOTAL+ 5%	711.79			
TOTAL						-			

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QTY. CALC.(ADM. FINISHING)

3A10 : PAINTING WORK (2)

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A1004	Varnish Paint	m	Stair Handrail		$(0.09+0.05)*2*43.2$	12.10
					TOTAL+ 5%	12.70
3A1005	Marine Paint	m	Structure Steel at Emergency Stair		$0.125*4*10.9*2+(0.2*2+0.1*4)*2*3+(0.2+0.064*4)*6.25*4+(0.2*2+0.064*4)*5*8$	53.34
					TOTAL+ 5%	56.01
TOTAL						-

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CHECKED BY	<i>Colles</i>	<i>Aug 02</i>

QTY. CALC.(ADM. FINISHING)

3A11 : CARPENTRY AND JOINERY WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A1101	Wooden Skirting	m		ALL	$(6+5)*2+(4+3)*2+(4.45+5)*2$	54.90
					TOTAL+ 5%	57.65
3A1102	Blind Box w:12cm*d:10cm	m		ALL	$13+3.4+5+5.3*3+1.8+5.3*9+1.8+9.5*2*2+9.5*2+2.7+1.4$	149.70
					TOTAL+ 5%	157.19
3A1103	Wodden Door Frame	m	D8 ,D11		$(2.5+0.9)*2*31+(2.5*2+1.2)*3$	229.40
					TOTAL+ 5%	240.87
3A1104	Wodden Handrail	m	Staircase		$4.75+5.25+4*8+1.2$	43.2
					TOTAL+ 5%	45.36
TOTAL						-

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QTY. CALC.(ADM. FINISHING)

3A12 : INTERIOR FINISHING WORK

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.			
3A1202	Cement Fiberboard W/Suspended Ceiling	m <sup>2</sup>	Interior	1F	$2.5*4.5+4.2*3.5+2.5*4+3*3+1.7*3+3*6+1.8*3.5+3*2.5$	81.85			
				2F	$6*6-1.2*(3+0.8)+1.8*3.5+3*2.5$	45.24			
				3F	$2*3+6*6-1.2*(3+0.8)-(2.7+0.7)*1.7+(2.7+0.7)*1.7+1.8*3.5+3*2.5$	51.24			
				4F	$4.45*2.5+4.45*5.5$	35.60			
				5F	$4.45*5.2+4.45*2.8$	35.60			
				6F	$3*3+3*6$	27.00			
				SUB TOTAL					276.53
			Exterior	1F	$(16+1.2)*0.95+30*0.75$	38.84			
				2,3F	$36*2*0.75$	54.00			
				6F	$12*0.4$	4.80			
				SUB TOTAL					97.64
			TOTAL+ 5%					392.88	
			3A1201	Mineral Fiber Accoustic Board w/Suspended	m <sup>2</sup>	Interior	1F	$9*6+9*11.2+15*12.5+3*8+6*4.4+3*3.4+3*3+9*8+6*8-2.5*4+18*2+1.2*(3.5+3+0.5)+12*8+3.14*8*8*100/360-(12*5+2.5*4.5+4.2*3.5)$	632.17
							2F	$36.5*2+3*0.5+1.2*(3+0.8)+1.2*3.5+9.25*6+5*6+4*6+3*2.8$	201.16
3F	$36.5*2+3*0.5+1.2*(3+0.8)+1.2*3.5+18.25*8+5*6+4*3+12.25*8+18.25*6+3*2.8$	487.16							
4F	$3.14*6*6*0.5+2.48*12+6.25*2+3*0.5+1.8*8$	114.68							
5F	$3.14*6*6*0.5+2.48*12+6.25*2+3*0.5+1.8*8+3*3$	123.68							
6F	$3.14*6*6*0.5+2.48*12+6.25*2+3*0.5+1.8*8+4.45*5+4.45*3$	150.28							
SUB TOTAL							1709.13		
TOTAL+ 5%							1794.59		
3A1203	Aluminium Spandrel	m	Interior		$6*2.5*2$	30.00			
			Exterior	Terrace	$2*3.14*9*100/360*1.2+(6+8)*1.2+(6+4)*0.5$	40.64			
				Entrance	$1.5*3*2+2.5*6+(9-1.16)*17.5$	161.2			
			SUB TOTAL					231.84	
TOTAL+ 5%					243.43				
TOTAL						-			

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## QTY. CALC.(ADM. FINISHING)

## 3A13 : Miscellaneous Metal Work

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A1305	Steel Handrail ; h.600	m	Verandah & 4F Roof		2 .3F: $(36*2+0.8*4)*2+1.2*2+2$	154.80
					4F: $36*2+(16*3)*2$	110.00
					5 .6F: $(4.3+1.5*2)*2$	14.60
					SUB TOTAL	279.40
					TOTAL+ 5%	293.37
3A1306	Steel Handrail ; h.700	m	1F Terrace			20.00
						TOTAL+ 5%
3A1307	Steel Handrail ; h.1100	m	Emergency Stair & Balcony		$(4.8+4.6+3.4*4)*2+1.5*3*2+2.5*2+2.2*6$	73.20
						TOTAL+ 5%
3A1313	Steel Pipe Protection Of Downspout Bottom ; h.2m	m			10nos.*2	20
						TOTAL+ 5%
TOTAL						-

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## QTY. CALC.(ADM. FINISHING)

## 3A15 : Outdoor Work

ITEM NOS.	FINISHING MATERIAL	UNIT	LOCATION	STOREY	QUANTITY CALCULATION	TOTAL QTY.
3A1501	Catch Basin 400*400	nos			10nos	
3A1502	Catch Basin 500*500	nos			3nos	
3A1503	Drainage Piping ,Including Elbow ;PVC 150mm DIA With Sand Filling Protection	m			87	87.00
					TOTAL+ 5%	91.35
	Sand Filling ;Pipe Protection	m3			0.5*0.4*87.5	17.50
					TOTAL+ 5%	18.38
3A1504	Interlocking Block	m <sup>2</sup>			$(9.5*9.5-7.5*7.5)*3.14+(44.5+15+5+28+59+12+5+10)*2+16.5*3+4*7+16.5*16.5$	809.51
					TOTAL+ 5%	849.99
3A1505 1509	Border Block : PC 100*300*600	m			169.85	169.85
					TOTAL+ 5%	178.34
3A1506	Border Block : PC 100*100*600	m	Air Con Area		$(7+9)*2$	32.00
					TOTAL+ 5%	33.60
3A1507	Net Fence H;2500 Including Door &	m			$(7+9)*2+5$	37.00
					TOTAL+ 5%	38.85
3A1508	Gravel Bedding 60mm thk	m3			$(7+9)*2*0.06$	1.92
					TOTAL+ 5%	2.02
3A1509	Loan to Planting Area Including Sand Filling	m <sup>2</sup>			$(33+5)*2+0.5*5*5*3.14+7*2+(2.5+5.5)*4*0.5+5*5*2+16*6+5*2+15*2+7*3+6.5*3+9*2+3*3*0.5+4*4+7.5+(2+9.5)*6.5+18*15-(7*9+5*1.5)+9*15+15*1.5$	849.50
					TOTAL+ 5%	891.98
TOTAL						-

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<b>Section</b>	3A1510 (Parking Shed)	Calc. Index No.																																					
<b>Subject</b>	Excavation for Foundation	Page No. 054	Rev.																																				
<p>F1)</p> <p> <math>(1.40 + 1.90) \times 0.95 \times 1.70 = 5.33 \text{ m}^3</math> </p> <p> <u>Total <math>5.33 \times 8 \text{ nos} = 42.64 \text{ m}^3</math></u> </p>			References/Notes																																				
<table border="1"> <tr> <th colspan="4">CALCULATION</th> </tr> <tr> <td colspan="4">Detailed Design</td> </tr> <tr> <td colspan="4">on Port Reactivation Project</td> </tr> <tr> <td colspan="4">in La Union Province</td> </tr> <tr> <td colspan="2">CALC FILE No.:</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">CALC INDEX No.:</td> <td colspan="2">PAGE 054</td> </tr> <tr> <td colspan="2"></td> <td>INITIAL</td> <td>DATE</td> </tr> <tr> <td colspan="2">PREPARED BY</td> <td>Y.F.</td> <td>Jul 02</td> </tr> <tr> <td colspan="2">CHECKED BY</td> <td>KOHA</td> <td>Aug 04</td> </tr> </table>				CALCULATION				Detailed Design				on Port Reactivation Project				in La Union Province				CALC FILE No.:				CALC INDEX No.:		PAGE 054				INITIAL	DATE	PREPARED BY		Y.F.	Jul 02	CHECKED BY		KOHA	Aug 04
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Y. Fujikawa		1 Jul 200																																					
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<b>Project</b>	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
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<b>Subject</b>	Backfilling	Page No. 055	Rev.
(F1)	$5.33 - (0.8 \times 0.8 \times 0.35 + 0.2 \times 0.3 \times 0.6) = 5.07$ $\text{Total } 5.07 \times 8 \text{ NOS.} = \underline{\underline{40.56 \text{ m}^3}}$	References/Notes	
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p style="text-align: center;"><b>CALCULATION</b></p> <p style="text-align: center;">Detailed Design on Port Reactivation Project in La Union Province</p> <p>CALC FILE No. _____</p> <p>CALC INDEX No. _____ PAGE 055</p> <p>PREPARED BY <u>Y.F.</u> INITIAL <u>Y.F.</u> DATE <u>Jul/02</u></p> <p>CHECKED BY <u>Abila</u> INITIAL <u>Abila</u> DATE <u>Aug/02</u></p> </div>			
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Y. Fujikawa		1 Jul/200	
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Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.																																					
Section	3A1510 (Parking Shed)	Calc. Index No.																																					
Subject	Concrete and Formwork.	Page No.	Rev.																																				
3G0302	Concrete. FC 210 kg/cm <sup>2</sup>	References/Notes																																					
	F1 (0.8x0.8x0.2 + 0.2x0.3x0.8) x 8 nos. = 1.41 m <sup>3</sup>																																						
	Slab 18.1 x 6.8 x 0.15 = 18.46 Total <u>19.87 m<sup>3</sup></u>																																						
3G0303	Reinforcement Steel Bar																																						
	F1) D16 <sup>4</sup> nos <sup>Loss</sup> 0.80 x 10 x 8 x 1.56 x 1.04 x 1/1000 = 0.104 ton																																						
	Column MB D16 1.20 x 4 x 8 x 1.56 x 1.04 x 1/1000 = 0.062																																						
	Hoop D10 1.60 x 5 x 8 x 0.56 x 1.04 x 1/1000 = 0.023																																						
	D10 Slab (18.1 x 35 + 6.8 x 91) x 0.56 x 1.04 x 1/1000 = 0.73 Sub Total 0.19																																						
	Total 0.92 ton																																						
3G0304	Formwork																																						
	F1) 0.30 x 3.20 x 8 nos = 5.12 m <sup>2</sup>																																						
	Column) 1.00 x 0.80 x 8 " = 6.40																																						
	Total <u>11.52 m<sup>2</sup></u>																																						
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Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.																																									
Section	3A1510 (Parking Shed)	Calc. Index No.																																									
Subject	Structure Steel Work	Page No. 057	Rev.																																								
			References/ Notes																																								
C1) W8x10 → H-200x100x4.3x5.2 (14.9 kg/m) $(2.8 + 3.3) \times 4 \times 14.9 \times 1.05 \times 1/1000 = 0.58 \text{ ton}$																																											
B1) W10x15 → H-254x102x5.8x6.9 (22.3 kg/m) AXIS A, B $(5.50 \times 6 + 0.8 \times 4) \times 22.3 \times 1.05 \times 1/1000 = 0.85$ AXIS 1, 2, 3, 4 $(5.0 + 1.6) \times 4 \times 22.3 \times 1.05 \times 1/1000 = 0.62$ AXIS 1, 2, 2-3, 3, 4 $(5.0 + 1.6) \times 4 \times 22.3 \times 1.05 \times 1/1000 = 0.62$ Subtotal. 2.67																																											
B2) C-5x9 → [125x42x8 (13.4 kg/m) $(5.50 \times 3 + 0.8 \times 2) \times 13.4 \times 1.05 \times 1/1000 = 0.25$																																											
BRACING ) GUSSET PL. ) $(2.67 + 0.25) \times 7\% = 0.20$																																											
$\text{Total } 2.67 + 0.25 + 0.20 = 3.12 \text{ ton}$																																											
<table border="1"> <tr> <th colspan="4">CALCULATION</th> </tr> <tr> <td colspan="4">Detailed Design</td> </tr> <tr> <td colspan="4">on Port Reactivation Project</td> </tr> <tr> <td colspan="4">in La Union Province</td> </tr> <tr> <td colspan="2">CALC FILE No.:</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">CALC INDEX No.:</td> <td colspan="2">PAGE 057</td> </tr> <tr> <td>PREPARED BY</td> <td>INITIAL</td> <td>DATE</td> <td></td> </tr> <tr> <td></td> <td>Y.F</td> <td>Jul.02</td> <td></td> </tr> <tr> <td>CHECKED BY</td> <td>INITIAL</td> <td>DATE</td> <td></td> </tr> <tr> <td></td> <td>A.H</td> <td>Aug.02</td> <td></td> </tr> </table>				CALCULATION				Detailed Design				on Port Reactivation Project				in La Union Province				CALC FILE No.:				CALC INDEX No.:		PAGE 057		PREPARED BY	INITIAL	DATE			Y.F	Jul.02		CHECKED BY	INITIAL	DATE			A.H	Aug.02	
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